
PONY
سلسلة كتب الأستاذ
MATH
2025
3
PRIMARY
FIRST TERM

Contents

Chapter 1

Chapter Lessons



Lesson 1 Patterns

Outcomes:
- Identify repeating and arithmetic patterns.
- Determining the next two elements in a pattern.



Lesson 2 More of Bar Graphs

Outcomes:
- Identifying elements of a bar graph.
- Organizing, representing, and analyzing data from a bar graph.

Lesson 3 Line Plot

Outcomes:
- Identifying elements of a line plot.
- Collecting and recording data.
- Creating a line plot.

Lessons 4–6 Measuring Lengths in (Centimeter, Meter, and Millimeter)

Outcomes:
- Discussing centimeter measurement.
- Measuring the length of objects in centimeters.
- Estimating the length of objects in centimeters and meters.
- Discussing meter measurement.
- Demonstrate understanding of the relationship between centimeters and meters.
- Determining whether to use centimeters or meters to measure length.
- Demonstrate understanding that centimeters are composed of millimeters.
- Measuring the length of objects in millimeters.
- Describing the pattern they observe when measuring the same object in millimeters and centimeters.



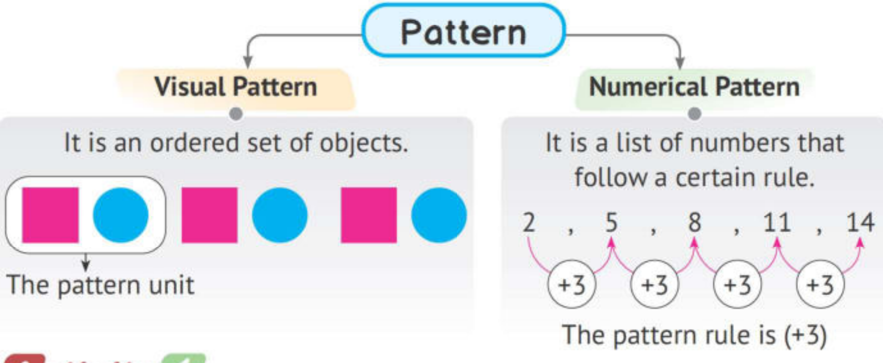
Patterns الأنماط

Pattern

Learn

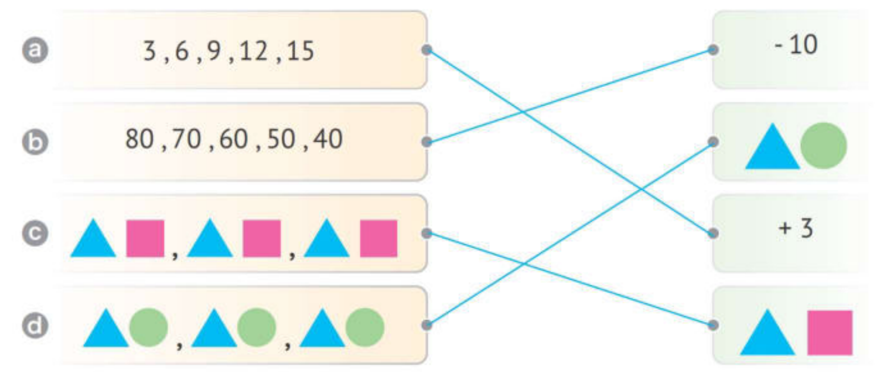
A group of numbers or shapes that are repeated regularly according to a specific rule.

النمط: هو مجموعة من الأشكال أو الأعداد تتكرر بشكل منتظم، وفقًا لقاعدة محددة.



Activity 1

Match:



Visual pattern	النمط البصري	Pattern	الأنماط
Numerical pattern	النمط العددي	Pattern rule	قاعدة النمط



Activity 2

Find out the pattern, then complete in the same sequence:

	Rule
ⓐ 22, 24, 26, 28, 30, 32, 34	+2
ⓑ 6, 12, 18, 24, 30, 36, 42	+6
ⓒ 90, 85, 80, 75, 70, 65, 60	−5
ⓓ 40, 36, 32, 28, 24, 20, 16	−4

ⓔ

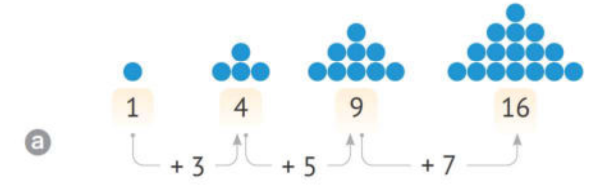
ⓕ

Learn The pattern rule can be increased or decreased by a specific rule and is not a fixed number.

قاعدة النمط يمكن أن تزداد أو تقل بقاعدة محددة ولا تكون عددًا ثابتًا.

Ex. Note the following visual pattern:

ⓐ



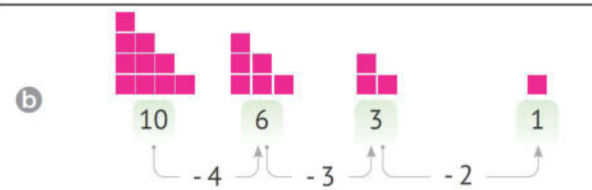


The pattern key may not be a fixed number, it can also be incremented by a specific rule.

Important Notes:

- The pattern rule is increased by 2.

ⓑ



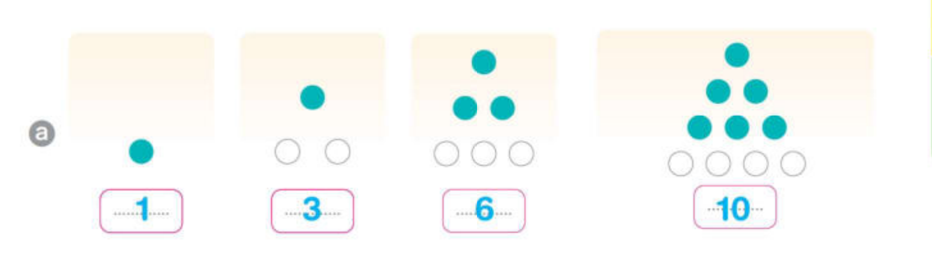
Important Notes:

- The pattern rule is decreased by 1.

Increased يزيد	Decreased يقل

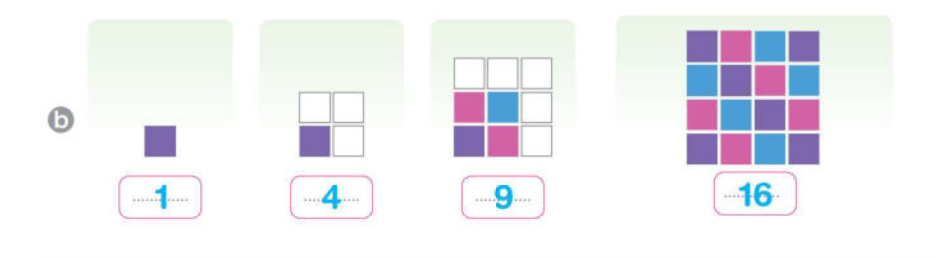
Activity 3 Find out the pattern, then complete:

a



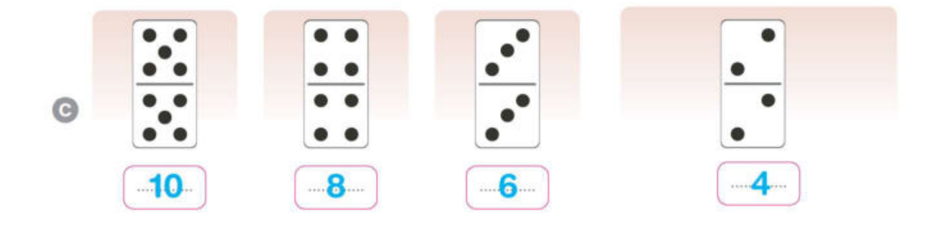
1 3 6 10

b



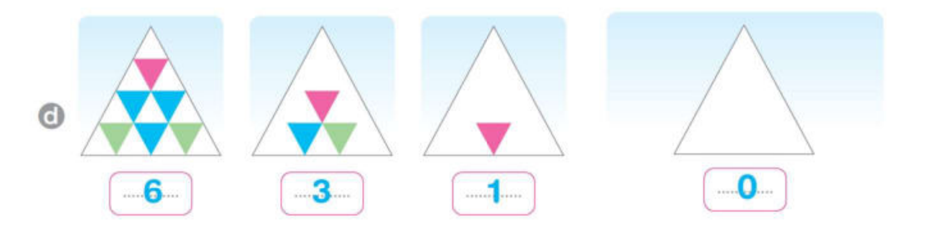
1 4 9 16

c



10 8 6 4

d



6 3 1 0





More of Bar Graphs

مزيد من التمثيل البياني بالأعمدة

Learn — Representing Data Using a Bar Graph

It is the conversion of data and figures into drawings to facilitate studying and analysing the data.

التمثيل البياني بالأعمدة: هو تمثيل بياني نستخدم فيه الأعمدة ذات الأطوال أو الارتفاعات المختلفة لتمثيل البيانات التي تم جمعها.

Ex. The following bar graph shows the number of animals in the farm.

Vertical Axis

It shows us what we count.

Animals in the Farm

The title clarifies the topic of the bar graph.

Number of Animals

0 1 2 3 4 5 6 7

Horizontal Axis

The scale indicates quantity (the way we count).

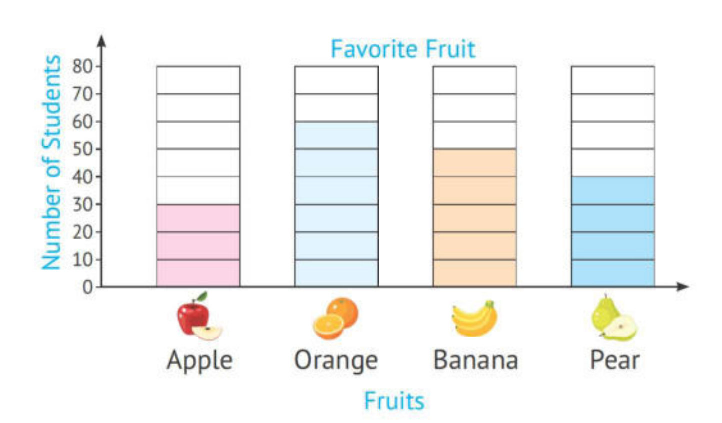
Animals

The sets show the data we collect.

It shows us what the groups are referring to.

Horizontal axis	محور أفقي	Set	مجموعة
Vertical axis	محور رأسي	Scale	مقياس

Activity 1 Look at the favorite fruit graph, then answer:



a Complete the following table:

Favorite Fruit	Apple	Orange	Banana	Pear
Number of Students	30	60	50	40

b How many students liked oranges?

60

c How many students liked apples and bananas?

30 + 50 = 80

d How many students were asked about their favorite fruit?

30 + 60 + 50 + 40 = 180

e What is the least popular fruit on this graph?

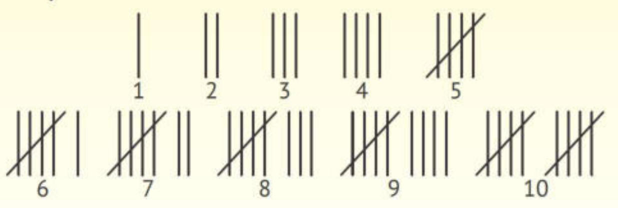
Apples



Learn

Tally Marks

They are used to record votes or other items.



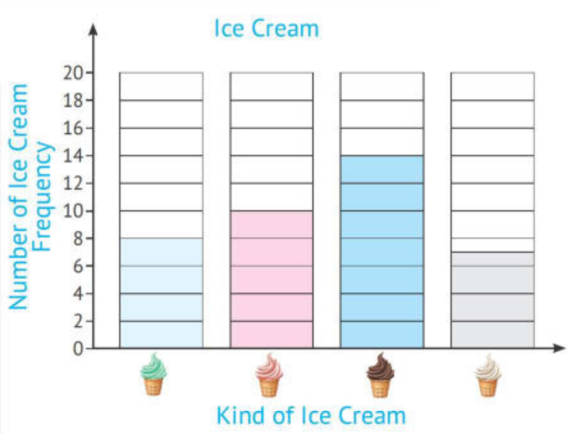
Each tally mark represents a number, until we reach the number 5.
We draw the fifth mark above the other 4 for it to be a bundle.

كل علامة تمثل وحدة، وعند الوصول إلى خمس علامات تُرسم العلامة الخامسة على العلامات الأربع الأولى (𝍸) وتسمى حزمة.

Ex. The following ice cream pieces show the store's sales:
Make a tally table to count the ice cream pieces.



Ice Cream	Tally Marks	Number Frequency
	𝍸 |||	8
	𝍸 𝍸	10
	𝍸 𝍸 ||||	14
	𝍸 ||	7



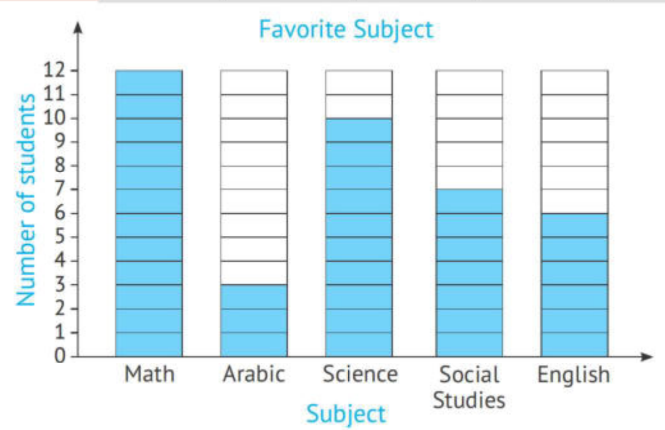
Frequency التكرار	Bundle حزمة



The following table shows the favorite subjects of a number of students. Complete the table and the bar graph, then answer the questions:

ⓐ **Complete the following table:**

Favorite Subject	Math	Arabic	Science	Social Studies	English
Tallies	卌 卌 ‖	|||	卌 卌	卌 ‖	卌	
Number of Students	12	3	10	7	6



ⓑ What is the difference between the number of students who prefer math and those who prefer Arabic?

$12 - 3 = 9$

ⓒ What is the total number of students who prefer the social studies and who prefer the Arabic?

$7 + 3 = 10$

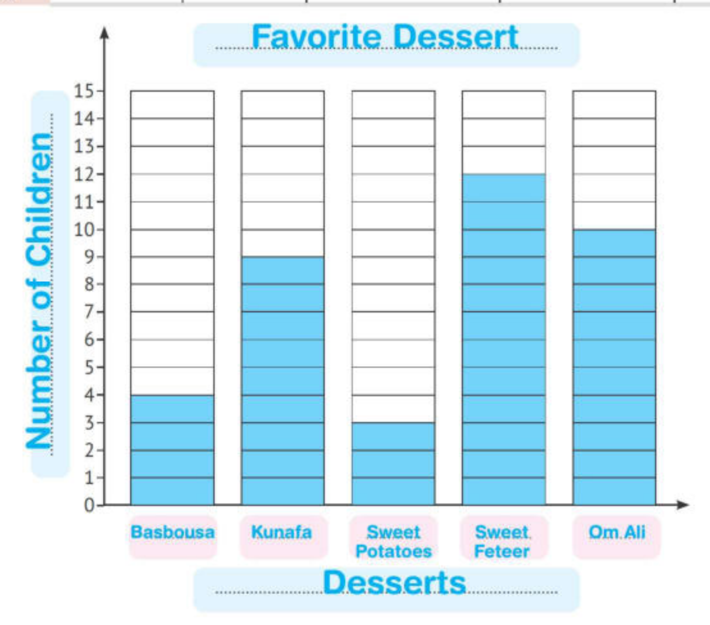
ⓓ Arrange the preffered subjects in an ascending order according to (تبعًا لـ) the number of students who prefer each of them.

Arabic, English, Social Studies, Science , Math



Activity 3 Use the following table to complete the bar graph:

Favorite Desserts	Basbousa	Kunafa	Sweet Potatoes	Sweet Feteer	Om Ali
Tallies	||||	卌 ||||	|||	卌 卌 ||	卌 卌
Number of Children	4	9	3	12	10



ⓐ How many children liked Kunafa? 9

ⓑ How many children liked Om Ali and Basbousa?
10 + 4 = 14

ⓒ Which dessert is liked the most? Sweet Feteer

ⓓ Which dessert is liked the least? Sweet Potatoes

ⓔ How many fewer students prefer sweet potatoes than those who prefer sweet feteer? 12 – 3 = 9



Line Plot التمثيل البياني بالنقاط

Learn

Line Plot Graph

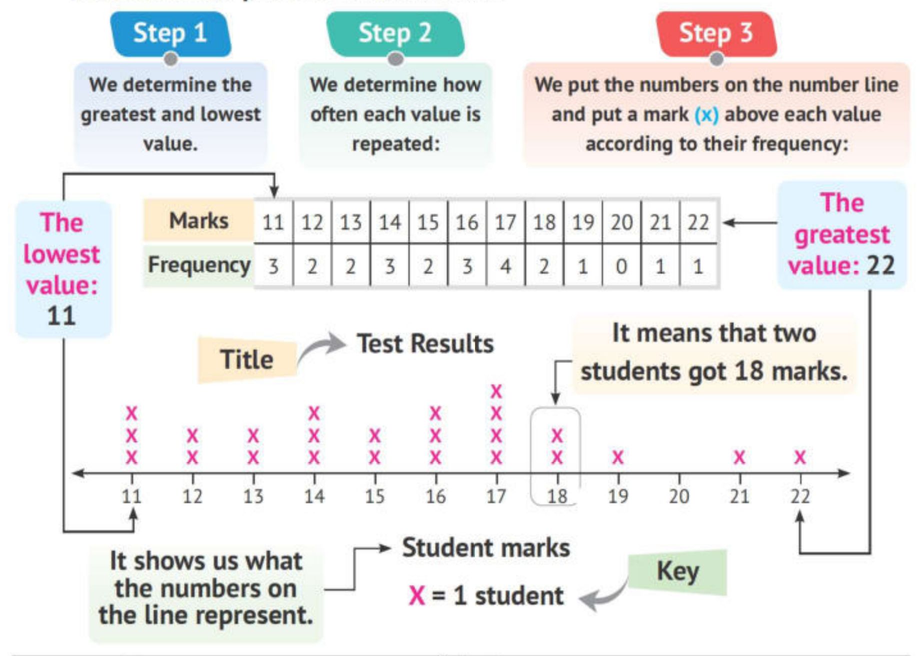
It is a method of displaying data using a number line by placing a sign (x) above the line to indicate the number of repetitions.

هو طريقة لعرض البيانات باستخدام خط الأعداد بوضع علامة (x) أعلى الخط لتوضيح عدد مرات التكرار.

Ex. The following numbers are the results from a test taken by a class of 24 students:

16	14	17	11	14	19	11	17
12	21	22	18	11	16	15	14
18	12	13	16	17	15	13	17

To make a line plot out of these data:



Marks	11	12	13	14	15	16	17	18	19	20	21	22
Frequency	3	2	2	3	2	3	4	2	1	0	1	1

Lowest value	أصغر قيمة	Title	عنوان
Greatest value	أكبر قيمة	Key	مفتاح



Activity 1

Create a line plot using the apples in the basket data: Make sure to give your line plot a title and a key.

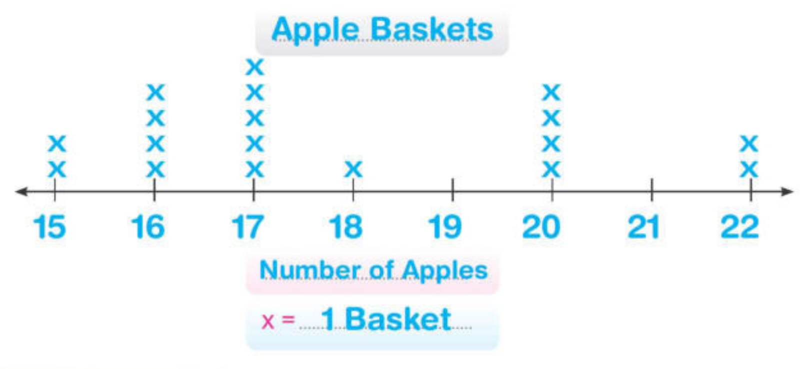


ⓐ The lowest value is ...15... . ⓑ The greatest value is ...22... .

ⓒ **The number of times each number is repeated:**

Number of Apples	15	16	17	18	19	20	21	22
Frequency	2	4	5	1	0	4	0	2

ⓓ **The line plot:**





Activity 2

The following data shows the weights of 20 children in kilograms. Create a line plot using these data:

68 , 65 , 63 , 63 , 62 , 64 , 65 , 61 , 65 , 61

64 , 61 , 64 , 66 , 64 , 62 , 61 , 62 , 68 , 65

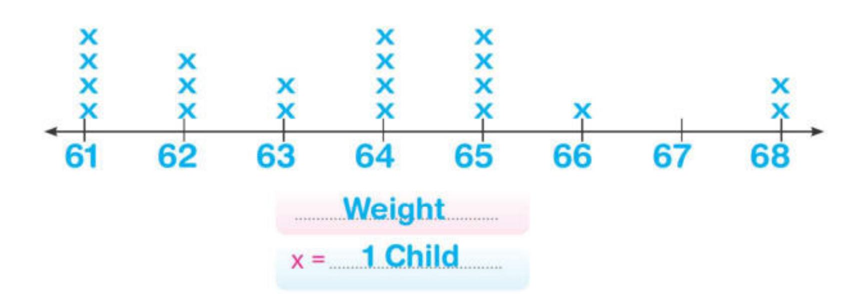
ⓐ The lowest value is ...61... .

ⓑ The greatest value is ...68... .

ⓒ **The number of times each number is repeated:**

Weight	61	62	63	64	65	66	67	68
Tallies	||||	|||	||	||||	||||	|		||
Frequency	4	3	2	4	4	1	0	2

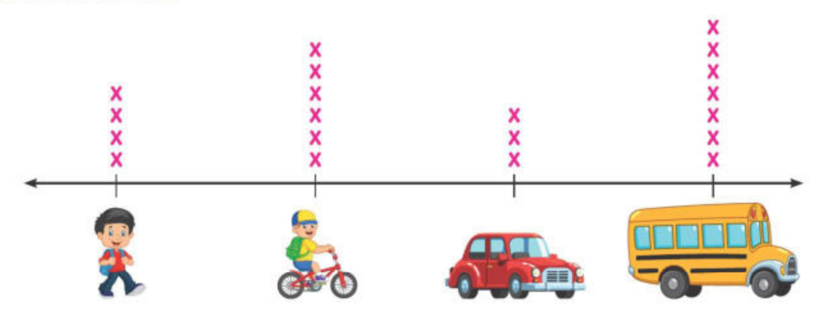
ⓓ **The line plot:**





Activity 3

The following line plot represents the methods used by 20 students to reach school:



Means of Transportation

X = 1 student

Answer the following question:

ⓐ How many students go to school by bus?

7

ⓑ How many students go to school by car?

3

ⓒ How many students go to school by bicycle?

6

ⓓ How many students go to school on foot?

4

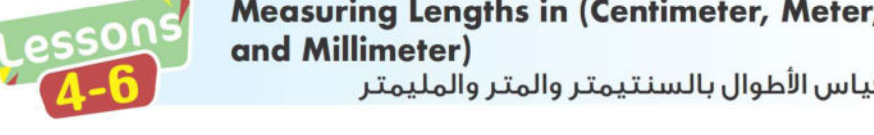
ⓔ What is the most popular means of transportation for students?

Bus

ⓕ How many more students go to school by bus than by bicycle?

$7 - 6 = 1$





Measuring Lengths in (Centimeter, Meter, and Millimeter)

قياس الأطوال بالسنتيمتر والمتر والمليمتر

Learn

Units of Measuring Length

Meter m → (100) → Centimeter cm

Centimeter cm → (10) → Millimeter mm

Millimeter mm	It is used to measure very small things, such as small insect, etc.	0 1
Centimeter cm	It is used to measure small things, such as pens, books, etc.	
Meter m	It is used to measure tall objects, such as trees, buildings, etc.	3 m

1 cm = 10 mm

1 m = 100 cm

Length طول	Units وحدات	Measuring قياس



Activity 1

See the pictures below. Determine what is the appropriate unit of length for measuring these things, then write it under each picture:

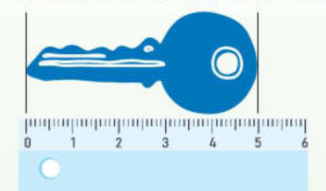
[Millimeter (mm), centimeter (cm), or meter (m).]

a Meter	b Millimeter	c Centimeter
d Centimeter	e Meter	f Meter
g Millimeter	h Millimeter	i Centimeter

A ruler is a measurement tool used to measure the length of small objects.

To use a ruler to measure the length of an object, such as a key:

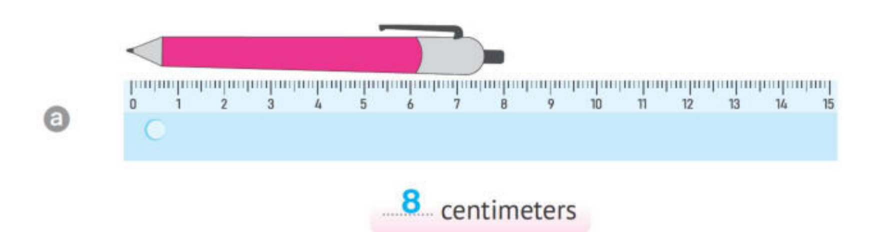
- Line up one end of the key with the zero mark on the ruler.
- Find the centimeter mark on the ruler that is at the other end of the key.



5 centimeters

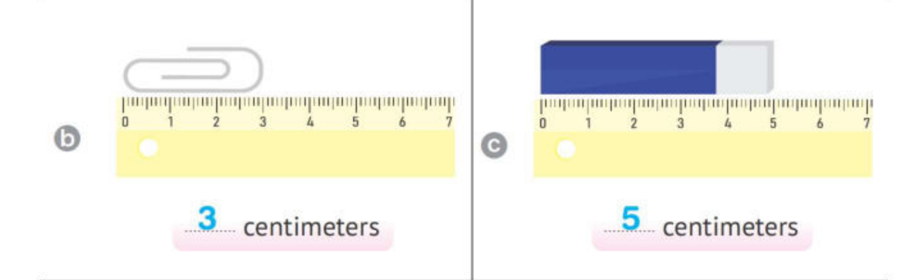
Activity 2 **Use the ruler to measure the length of each object in centimeters:**

ⓐ



8 centimeters

ⓑ

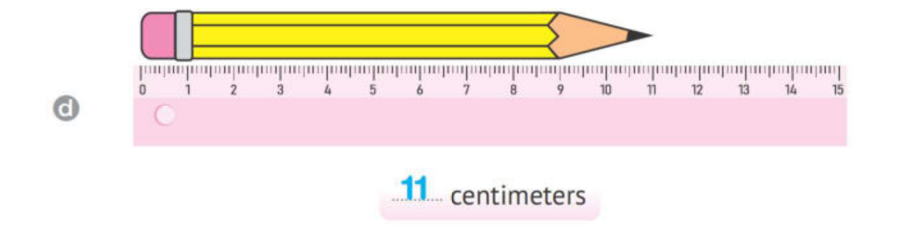


3 centimeters

ⓒ

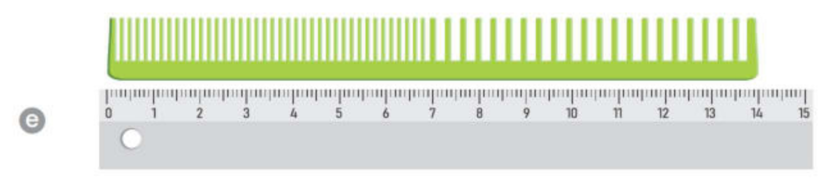
5 centimeters

ⓓ



11 centimeters

ⓔ

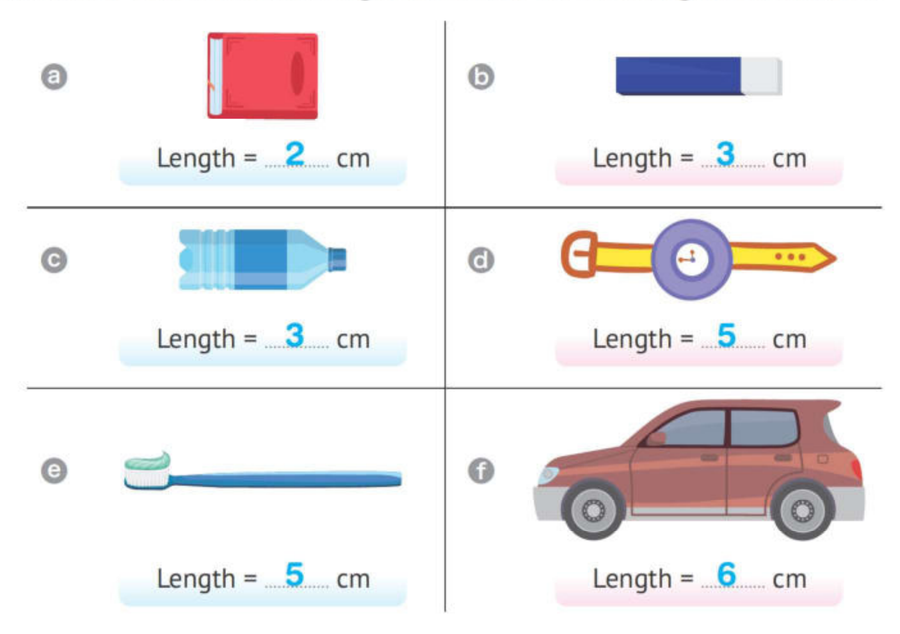


14 centimeters



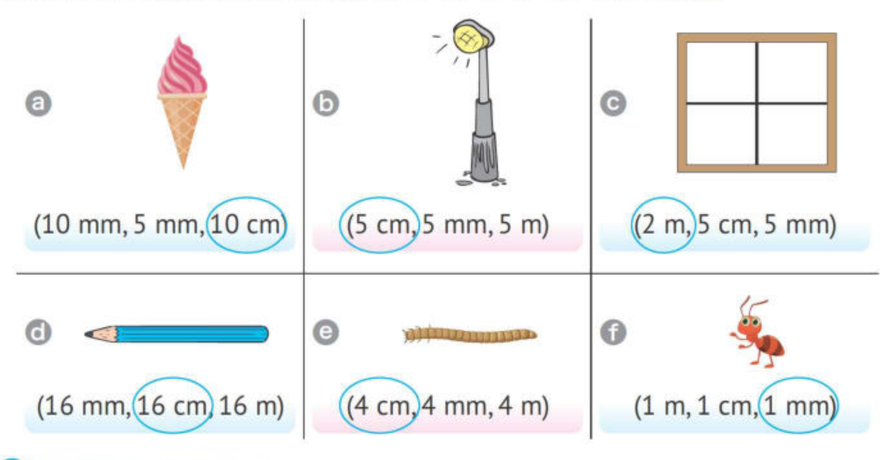
Activity 3

Use a ruler to measure the length of each of the following in centimeters:



Activity 4

Choose the appropriate length for each of the following:



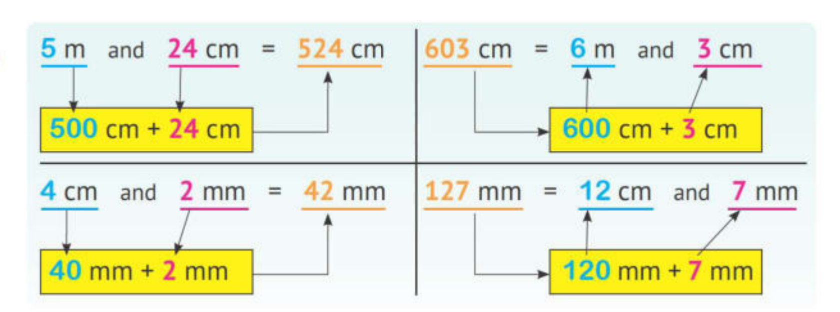
Ex.

1 meter = 100 centimeters	(1m = 100 cm)
3 m = 300 cm	(300 cm = 3 m)
1 centimeter = 10 millimeters	(1 cm = 10 mm)
4 cm = 40 mm	(40 mm = 4 cm)

Activity 5 Complete the following:

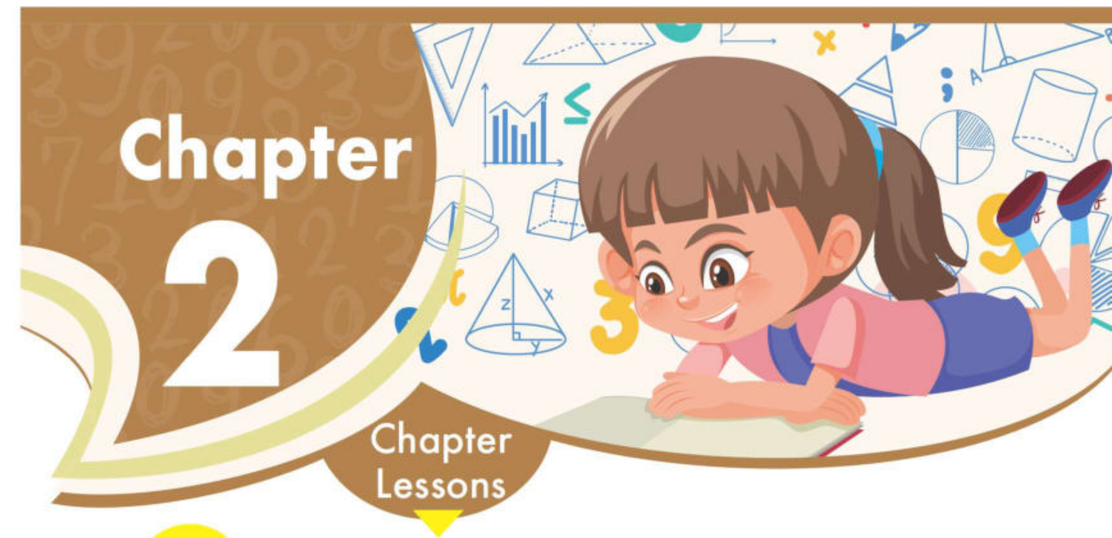
ⓐ 3 meters = ...300.... centimetres
ⓑ 800 centimetres = ...8.... meters
ⓒ 1 m = ...100.... cm
ⓓ 700 cm = ...7.... m
ⓔ 8 m = ...800.... cm
ⓕ 200 cm = ...2.... m
ⓖ 1 centimetre = ...10.... millimeters
ⓗ 50 millimeters = ...5.... centimetre
ⓘ 70 centimetre = ...700.... millimeters
ⓙ 180 millimeters = ...18.... centimetre
ⓚ 3 cm = ...30.... mm
ⓛ 600 mm = ...60.... cm
ⓜ 14 cm = ...140.... mm
ⓝ 120 mm = ...12.... cm





Activity 6 Complete the following:

ⓐ 3 m and 72 cm = ...372.... cm
ⓑ 3 cm and 7 mm = ...37.... mm
ⓒ 5 m and 20 cm = ...520.... cm
ⓓ 10 cm and 5 mm = ...105.... mm
ⓔ 7 m and 3 cm = ...703.... cm
ⓕ 32 cm and 4 mm = ...324.... mm
ⓖ 382 cm = ...3.... m and ....82.... cm
ⓗ 96 mm = ...9.... cm and ....6.... mm
ⓘ 950 cm = ...9.... m and ....50.... cm
ⓙ 208 mm = ...20.... cm and ....8.... mm
ⓚ 407 cm = ...4.... m and ....7.... cm
ⓛ 725 mm = ...72.... cm and ....5.... mm



Chapter 2

Chapter Lessons

Lessons 1–4 Thousands, Ten Thousands, and Hundred Thousands – Numbers in Different Forms

Outcomes:

- Explaining how the value of a digit can change based on its Place Value.
- Applying strategic thinking to construct a four-digit number with a high value.
- Reading and writing numbers up to the Thousands place in Standard Form.
- Reading and writing numbers up to the Thousands place in Expanded Form.
- Creating visual models of numerical value.
- Comparing numbers using symbols.
- Reading and writing numbers up to the Hundred Thousands place.
- Comparing and ordering numbers up to the Hundred Thousands place.
- Skip counting by 2s, 5s, or 10s.
- Reading and writing numbers up to the Hundred Thousands place in Expanded Form.
- Ordering a series of numbers up to the Hundred Thousands place.

Lesson 5 Arrays

Outcomes:

- Using a variety of strategies to calculate the total number of items in an array.
- Explaining the strategies they used to calculate the total number of items in an array.
- Solving repeated addition problems.

Lesson 6 Multiplication

Outcomes:

- Comparing arrays to equal groups.
- Explaining how repeated addition and multiplication equations are related.
- Explaining products of whole numbers.
- Comparing two products using greater than, less than, and equal to symbols.

Lesson 7 Commutative Property in Multiplication

Outcomes:

- Solving multiplication problems using arrays.
- Investigating the Commutative Property of Multiplication using arrays.
- Creating arrays to model the Commutative Property of Multiplication.
- Solving multiplication problems using arrays.



Thousands, Ten Thousands, and Hundred Thousands – Numbers in Different Forms

الآلاف – عشرات الآلاف ومئات الآلاف – صيغ مختلفة لكتابة الأعداد

First: Reading and Writing Numbers Up to 999,999

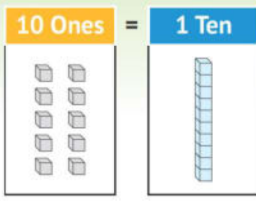
Remember:

0	Zero
1	One
2	Two
3	Three
4	Four
5	Five
6	Six
7	Seven
8	Eight
9	Nine

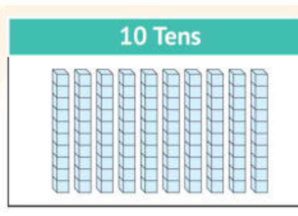
10	Ten
11	Eleven
12	Twelve
13	Thirteen
14	Fourteen
15	Fifteen
16	Sixteen
17	Seventeen
18	Eighteen
19	Nineteen

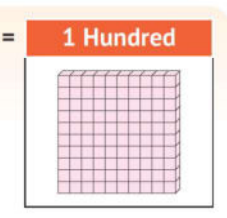
20	Twenty
30	Thirty
40	Forty
50	Fifty
60	Sixty
70	Seventy
80	Eighty
90	Ninety
100	Hundred

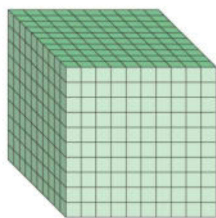
10 Ones = 1 Ten



10 Tens = 1 Hundred







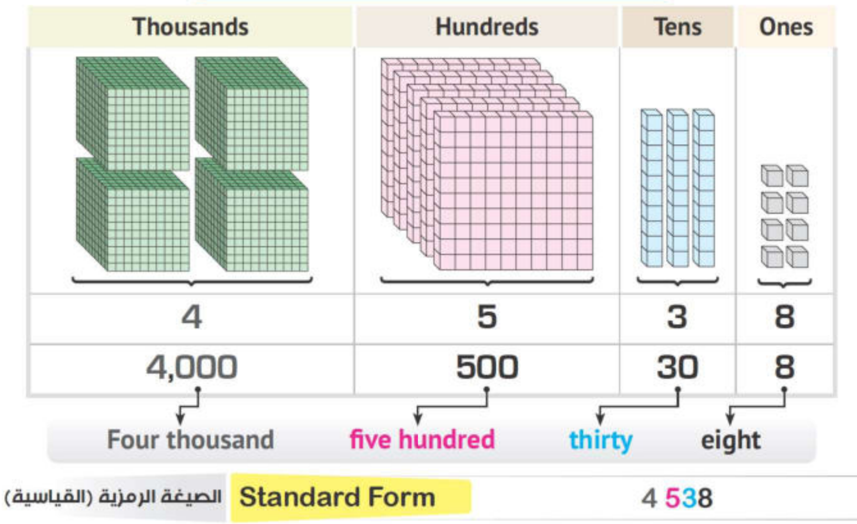
10 hundreds = 1000

one thousand

4-digit number	عدد مكون من 4 أرقام	Digit	رقم	Number	عدد
5-digit number	عدد مكون من 5 أرقام	6-digit number			عدد مكون من 6 أرقام



Thousands (4-digit Numbers)



Thousands	Hundreds	Tens	Ones
4	5	3	8
4,000	500	30	8
Four thousand	five hundred	thirty	eight

الصيغة الرمزية (القياسية)	Standard Form	4 538
الصيغة اللفظية	Word Form	Four thousand, five hundred, and thirty-eight.
الصيغة اللفظية المختصرة	Short-word Form	4 thousand, 538

5-digit Numbers (Ten Thousands)

Ten Thousands	One-thousand Thousands	Hundreds	Tens	Ones
5	8	4	2	6
50,000	8,000	400	20	6

Fifty-eight thousand four hundred twenty six

Standard Form	58,426
Word Form	Fifty-eight thousand, four hundred twenty-six.
Short-word Form	58 thousand, 426

Lessons 1 – 4

6-digit Numbers (Hundred Thousands)

Thousands			Hundreds	Tens	Ones
Hundreds	Tens	Ones			
3	6	1	2	4	3
300,000	60,000	1,000	200	40	3

Three hundred sixty-one thousand, two hundred forty-three

Standard Form	361,243
Word Form	Three hundred sixty-one thousand, two hundred forty-three.
Short-word Form	361 thousand, 243



- 3,000 is read as: **Three thousand.**
- 3,405 is read as: **Three thousand, four hundred five.**
- 3,050 is read as: **Three thousand, fifty.**
- 3,456 is read as: **Three thousand, four hundred fifty-six.**

- 20,000 is read as: **Twenty thousand.**
- 23,000 is read as: **Twenty-three thousand.**
- 23,415 is read as: **Twenty-three thousand, four hundred fifteen.**
- 23,045 is read as: **Twenty-three thousand, forty-five.**
- 23,456 is read as: **Twenty-three thousand, four hundred fifty-six.**

- 200,000 is read as: **Two hundred thousand.**
- 256,003 is read as: **Two hundred fifty-six thousand, three.**
- 256,720 is read as: **Two hundred fifty-six thousand, seven hundred twenty.**
- 256,723 is read as: **Two hundred fifty-six thousand, seven hundred twenty-three.**



Activity 1 Write the number shown on the figure:

a

Thousands	Hundreds	Tens	Ones
3	8	4	4

Standard Form: 3,844

Word Form: Three thousand, eight hundred forty- four

b

Thousands	Hundreds	Tens	Ones
5	0	2	8

Standard Form: 5,028

Word Form: Five thousand, twenty-eight

c

Thousands			Hundreds	Tens	Ones
Hundreds	Tens	Ones			
		6	5	2	0

Standard Form: 6,520

Word Form: Six thousand, five hundred twenty

d

Thousands			Hundreds	Tens	Ones
Hundreds	Tens	Ones			
		4	7	0	8

Standard Form: 4,708

Word Form: Four thousand, Seven hundred eight

e

Thousands			Hundreds	Tens	Ones
Hundreds	Tens	Ones			
	2	4	0	3	5

Standard Form: 24,035

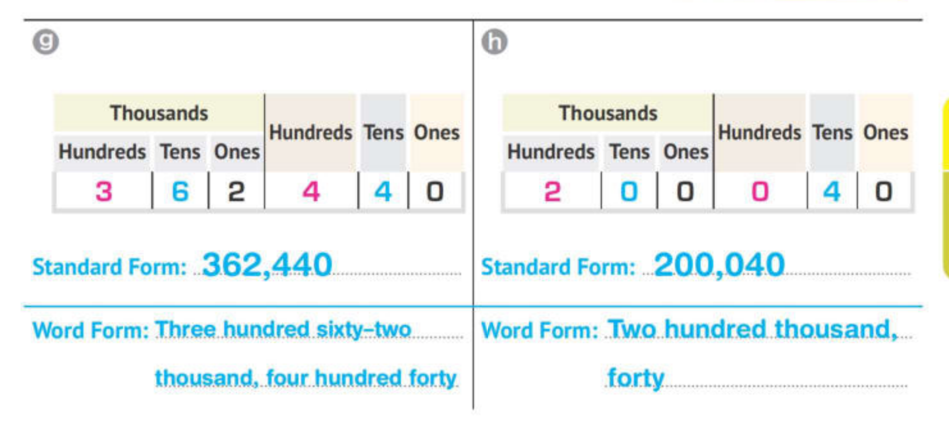
Word Form: Twenty-four thousand, thirty-five

f

Thousands			Hundreds	Tens	Ones
Hundreds	Tens	Ones			
	7	9	3	8	0

Standard Form: 79,380

Word Form: Seventy-nine thousand, three hundred eighty



g

Thousands			Hundreds	Tens	Ones
Hundreds	Tens	Ones			
3	6	2	4	4	0

Standard Form: 362,440

Word Form: Three hundred sixty-two thousand, four hundred forty

h

Thousands			Hundreds	Tens	Ones
Hundreds	Tens	Ones			
2	0	0	0	4	0

Standard Form: 200,040

Word Form: Two hundred thousand, forty

Activity 2 Complete the following:

a

Thousands			Hundreds	Tens	Ones
Hundreds	Tens	Ones			
....	....	8	5	6	0

Standard Form: 8,560

Word Form: Eight thousand, five hundred sixty

b

Thousands			Hundreds	Tens	Ones
Hundreds	Tens	Ones			
....	6	0	4	1	5

Standard Form: 60,415

Word Form: Sixty thousand, four hundred fifteen

c

Thousands			Hundreds	Tens	Ones
Hundreds	Tens	Ones			
8	0	2	3	1	5

Standard Form: 802,315

Word Form: Eight hundred two thousand, three hundred fifteen

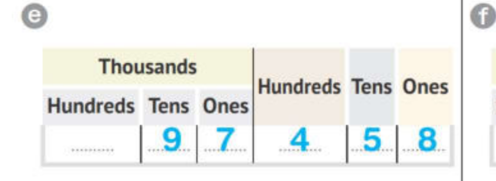
d

Thousands			Hundreds	Tens	Ones
Hundreds	Tens	Ones			
....	....	3	5	7	4

Standard Form: 3,574

Word Form: Three thousand, five hundred seventy four.





(e)

Thousands			Hundreds	Tens	Ones
Hundreds	Tens	Ones			
	9	7	4	5	8

Standard Form: 97,458

Word Form: Ninty-seven thousand, four hundred fifty eight.

(f)

Thousands			Hundreds	Tens	Ones
Hundreds	Tens	Ones			
8	2	4	2	3	1

Standard Form: 824,231

Word Form: Eight hundred twenty-four thousand, two hundred thirty-one.

Activity 3

Write the following in the standard form:

(a) Five thousand, three hundred sixteen: 5,316

(b) Eighty-four thousand, two hundred twenty-four: 84,224

(c) Nine hundred sixty-three thousand, eight hundred seven: 963,807

(d) Nineteen thousand, twenty-seven: 19,027

(e) Three hundred thousand, sixteen: 300,016

Activity 4

Write the following in the word form:

(a) 5,230 Five thousand, two hundred thirty

(b) 45,030 Forty–five thousand, thirty

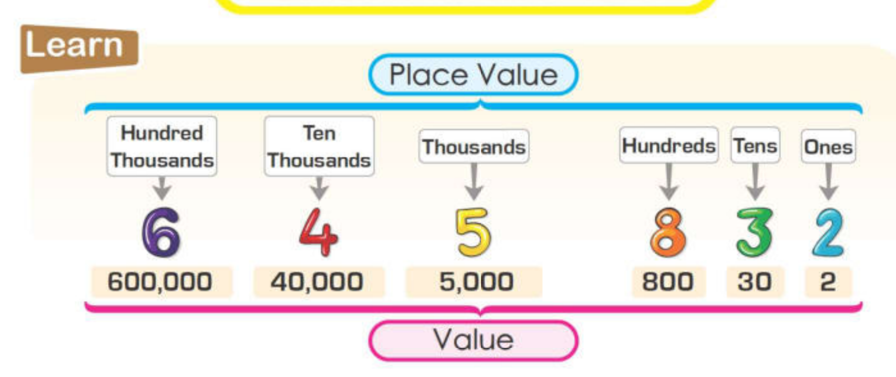
(c) 50,108 Fifty thousand, one hundred eight

(d) 340,008 Three hundred forty thousand, eight

(e) 503,160 Five hundred three thousand, one hundred sixty

Second: The Place Value

Learn



From the previous, we can understand that:

6 is in the **Hundred Thousands** place.

So
- The place value of the digit 6 is Hundred Thousands.
- The value of the digit 6 is 600,000.

4 is in the **Ten Thousands** place.

So
- The place value of the digit 4 is Ten Thousands.
- The value of the digit 4 is 40,000.

5 is in the **Thousands** place.

So
- The place value of the digit 5 is Thousands.
- The value of the digit 5 is 5,000.

8 is in the **Hundreds** place.

So
- The place value of the digit 8 is Hundreds.
- The value of the digit 8 is 800.

3 is in the **Tens** place.

So
- The place value of the digit 3 is Tens.
- The value of the digit 3 is 30.

2 is in the **Ones** place.

So
- The place value of the digit 2 is Ones.
- The value of the digit 2 is 2.

Place value	القيمة المكانية	Value	القيمة العددية

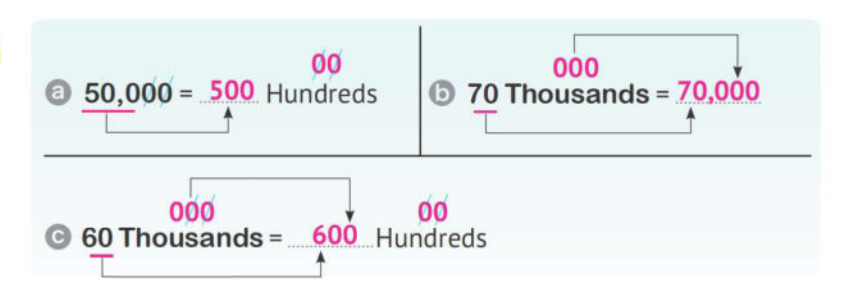


Activity 1

Write the value and place value of the encircled digit:

	Number	Value	Place Value
a	(2),3 5 6	2000	Thousands
b	5,(2) 0 9	200	Hundreds
c	3,0 1 (2)	2	Ones
d	7,8 (9) 6	90	Tens
e	3,(0) 5 0	0	Hundreds

Ex.



Activity 2

Complete:

a 20 Hundreds = 2,000

b 80,000 = 800 Hundreds

c 10,000 Tens = 100,000

d 5,000 = 5 Thousands

e 70 Thousands = 700 Hundreds

f 600 Thousands = 60,000 Tens

g 500 Hundreds = 5,000 Tens

h 3,000 Tens = 30 Thousands

i 6,000 Ones = 60 Hundreds

j 200 Hundreds = 20 Thousands



Place value can be used to write numbers in two forms:

723,156

Expanded Form

700,000 + 20,000 + 3,000 + 100 + 50 + 6

Units Form

723 Thousands + 1 Hundred + 5 Tens + 6 Ones

Activity 3

Write the following in the expanded form:

a) 360,459 = 300,000 + 60,000 + 400 + 50 + 9

b) 91,724 = 90,000 + 1,000 + 700 + 20 + 4

c) 600,531 = 600,000 + 500 + 30 + 1

d) 204,508 = 200,000 + 4,000 + 500 + 8

e) 250,008 = 200,000 + 50,000 + 8

Activity 4

Write the following in the units form:

a) 3,892 = 3 Thousands + 8 Hundreds + 9 Tens + 2 Ones

b) 52,023 = 52 Thousands + 0 Hundreds + 2 Tens + 3 Ones

c) 602,025 = 602 Thousands + 0 Hundreds + 2 Tens + 5 Ones

d) 65,715 = 1 Ten + 7 Hundreds + 65 Thousands + 5 Ones

e) 200,032 = 2 Ones + 0 Hundreds + 200 Thousands + 3 Tens



Activity 5

Write the following numbers in expanded form and units form:

ⓐ 45,237 = 45 Thousands + 2 Hundreds + 3 Tens + 7 Ones

45,237 = 40,000 + 5,000 + 200 + 30 + 7

ⓑ 15,028 = 15 Thousands + 0 Hundreds + 2 Tens + 8 Ones

15,028 = 10,000 + 5,000 + 20 + 8

ⓒ 300,080 = 300 Thousands + 0 Hundreds + 8 Tens + 0 Ones

300,080 = 300,000 + 80

Activity 6

Complete the following:

ⓐ 5,000 + 200 + 30 + 4 = 5,234

ⓑ 6 + 300 + 5,000 + 80 = 5,386

ⓒ 900 + 30,000 + 7,000 + 50 + 2 = 37,952

ⓓ 80 + 9,000 + 300,000 + 50,000 + 4 + 200 = 359,284

ⓔ 90,000 + 500 = 90,500

ⓕ 800,000 + 50 + 3 = 800,053

ⓖ 245 Thousands + 7 Hundreds + 6 Tens + 3 Ones = 245,763

ⓗ 2 Hundreds + 25 Thousands + 3 Ones = 25,203

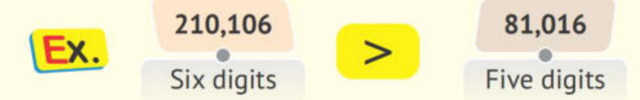
Third: Comparing and Ordering Numbers Up to 999,999

Learn

– To compare two numbers, do the following:

First: If the number of digits of each number is different

▶ **The number that has more digits is the greatest.**



Second: If the number of digits of each number is equal

▶ **Compare the value of the digits of the two numbers from left to right:**



ⓐ $245{,}568 < 567{,}984$

⇒ Because the value of the digit 5 is **greater than** the value of the digit 2.

ⓑ $78{,}620 > 76{,}902$

⇒ Because the value of the digit 8 is **greater than** the value of the digit 6.

ⓒ $952{,}105 < 958{,}601$

⇒ Because the value of the digit 8 is **greater than** the value of the digit 2.



- Different forms can be converted to the **standard form** to facilitate the comparison process.



Activity 1 Complete using (< , = or >):

a) 75,687 **<** 84,023

b) 4,363 **<** 40,000 + 30 + 600 + 3,000

c) 107,488 **>** 71,848

d) 80 Thousands **<** 80,000 Tens

e) 9,009 **<** 10,000

f) 920 Hundreds **=** 92,000 Ones

g) 85,102 **<** 85,120

h) 5,000 + 7 **>** 50 + 0 + 0 + 7

i) 82 Thousands + 5 Ones + 3 Tens + 4 Hundreds **<** 82,534

The ascending order

From the **smallest** number to the **greatest** number.

The descending order

From the **greatest** number to the **smallest** number.

Activity 2 Arrange in an ascending order:

a) 53,068 , 94,760 , 68,078 , 49,298 , 57,680

49,298 , 53,068 , 57,680 , 68,078 , 94,760

b) 700,415 , 700,514 , 700,145 , 700,541 , 700,451

700,145 , 700,415 , 700,451 , 700,514 , 700,541

c) 20,200 , 20,002 , 200 , 20,020 , 2,222

200 , 2,222 , 20,002 , 20,020 , 20,200

Activity 3 Arrange in a descending order:

ⓐ 80,102 , 30,999 , 50,103 , 70,000 , 50,680

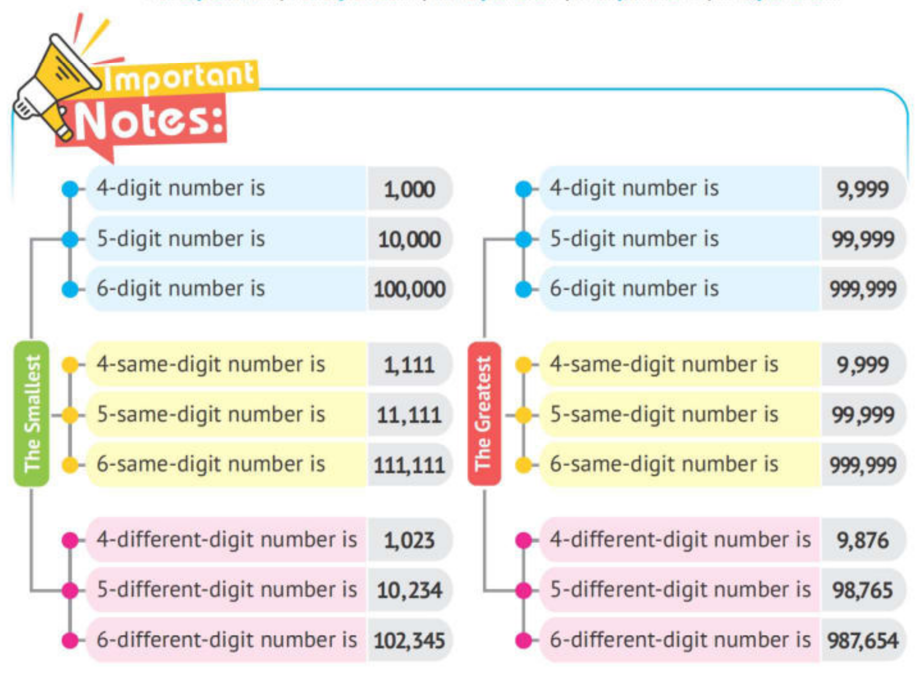
80,102 , 70,000 , 50,680 , 50,103 , 30,999

ⓑ 600,519 , 600,195 , 600,591 , 600,915 , 600,159

600,915 , 600,591 , 600,519 , 600,195 , 600,159

ⓒ 70,000 , 7,000 , 7,770 , 70,070 , 70,007

70,070 , 70,007 , 70,000 , 7,770 , 7,000

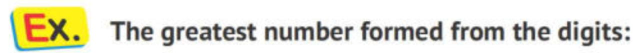






- To obtain the **greatest** number of given digits, arrange the digits from **greatest** to **least** from left to right.

Ex. **The greatest number formed from the digits:**



6 , 5 , 4 and 8 is 8,654



Important Notes:

- To obtain the **smallest** number of given digits, arrange the digits from **least** to **greatest** from left to right.

Ex. 1. **The smallest number formed from the digits:**

9 , 3 , 5 , 2 , 7 and 1 is 123,579

2. **The smallest number formed from the digits:**

3 , 9 , 5 , 0 , 8 and 4 is 304,589

Zero cannot be placed to the left, so it is swapped with the next number.

Ex. **From the digits 5 and 3.**

- The **greatest** 4-digit number is 5,553
- The **smallest** 5-digit number is 33,335

Ex. **From the digits 6, 5, and 3.**

- The **greatest** 4-digit number is 6,653
- The **smallest** 6-digit number is 333,356

Important Notes:

- To obtain a 4, 5 or 6-digit number while having fewer digits:
- If the **greatest** number is required, we repeat the **largest** digit.
- If the **smallest** number is required, we repeat the **smallest** digit.

Activity 4 Complete:

a) The **smallest** number formed from the digits 3, 8, 9. and 4 is **3,489** .

b) The **greatest** number formed from the digits 2, 4, 5, 9, and 7 is **97,542**

c) The **smallest** number formed from the digits 3, 6, 8, 0, and 4 is **30,468**

d) The **greatest** number formed from the digits 3, 0, 1. and 6 is **6,310** .

e) The **greatest** 4-digit number is **9,999** .

f) The **smallest** 6-digit number is **100,000**.

g) The **smallest** 4-digit number formed from the digits 5 and 8 is **5,558**.

h) The **greatest** 5-digit number formed from the digits 7 and 3 is **777,73**

i) The **smallest** 6-digit number formed from the digits 3, 7, and 5 is **333,357**

j) The **greatest** 6-digit number formed from the digits 4, 8, and 2 is **888,842**

Ex.

- The number **56,258** comes just **after** **56,257**.
- The number that comes just **after** **56,258** is **56,259**.

- The number **336,999** comes just **before** **337,000**.
- The number that comes just **before** **336,999** is **336,998**.

Activity 5 The number that comes just after:

a) 35,783 is **35,784** . b) 315,099 is **315,100** .

c) 68,029 is **68,030** . d) 820,999 is **821,000** .

Activity 6 The number that comes just before:

a) 370,689 is **370,688** . b) 13,000 is **12,999** .

c) 582,540 is **582,539** . d) 50,000 is **49,999** .





Arrays المصفوفات

Learn

An Array

It is a collection of objects arranged in horizontal rows and vertical columns, completed with no empty spaces.

المصفوفة: مجموعة من الأشياء المرتبة في صفوف أفقية، وأعمدة رأسية، مكتملة لا يوجد بها فراغات.

In the opposite array:

The number of rows is 3.

The number of strawberries in each row is 5.

Total number of strawberries is

5 + 5 + 5 = 15 strawberries.

The number of column is 5.

The number of strawberries in each column is 3.

Total number of strawberries is

3 + 3 + 3 + 3 + 3 = 15 strawberries.

5 Columns

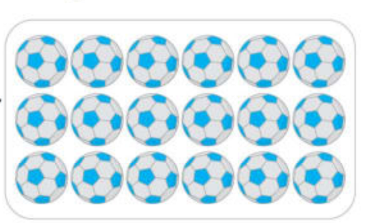
3 Rows

3 rows of 5 or 5 columns of 3

Column	عمود	Row	صف

Activity 1 Look at each array, then complete:

ⓐ The number of rows is ...3... .

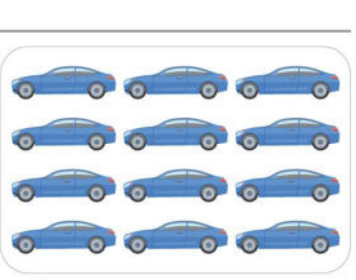


- The number of balls in each row is ..6.. .
- Total number of balls is
 ...6... + ...6... + ...6... = ...18... balls.
- The number of columns is ...6... .
- The number of balls in each column is ...3... .
- Total number of balls is ..3.. + ..3.. + ..3.. + ..3.. + ..3.. + ..3.. = ..18.. balls.
- ...3... rows of ...6... or ...6... columns of ...3...

ⓑ The number of rows is ..3.. .

- The number of tomatoes in each row is ..5.. .
- Total number of tomatoes is
 ...5... + ...5... + ...5... = ...15... tomatoes.
- The number of columns is ...5... .
- The number of tomatoes in each column is ...3... .
- Total number of tomatoes is ..3.. + ..3.. + ..3.. + ..3.. + ..3.. = ..15.. tomatoes.
- ...3... rows of ...5... or ...5... columns of ...3...

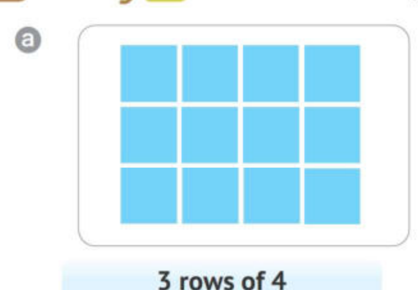
ⓒ The number of rows is ...4... .



- The number of cars in each row is ..3.. .
- Total number of cars is
 ...3... + ...3... + ...3... + ...3... = ...12... cars.
- The number of columns is ...3... .
- The number of cars in each column is ...4... .
- Total number of cars is ...4... + ...4... + ...4... = ...12... cars.
- ...4... rows of ...3... or ...3... columns of ...4...

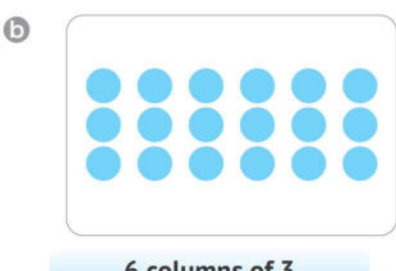
Activity 2 Create an array:

ⓐ



3 rows of 4

ⓑ



6 columns of 3

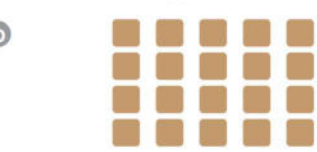
Activity 3 Calculate the total number of objects in each array:

ⓐ



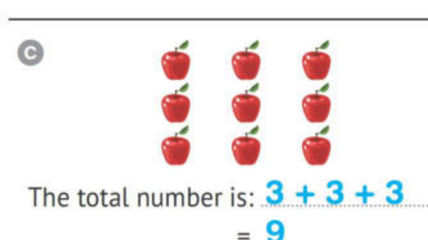
The total number is: 4 + 4 + 4
= 12

ⓑ



The total number is: 5 + 5 + 5 + 5
= 20

ⓒ



The total number is: 3 + 3 + 3
= 9

ⓓ

The total number is: 5 + 5
= 10

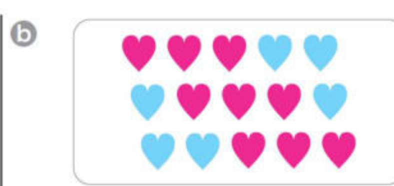
Activity 4 Complete the missing elements in the arrays, then find the total number:

ⓐ



The total number is: 4 + 4 + 4 + 4
= 16

ⓑ



The total number is: 5 + 5 + 5
= 15

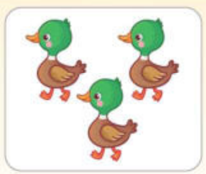
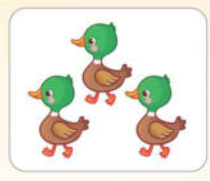
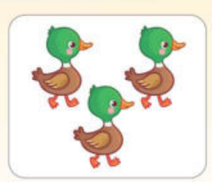


Multiplication مفهوم الضرب



Learn: The multiplication is a repeated addition

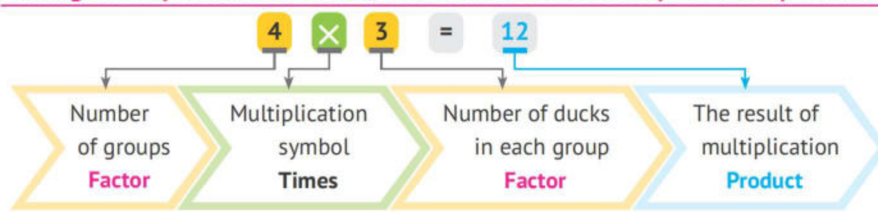
▶ **In the following figure:**

4 groups of ducks, each group consists of 3 ducks.

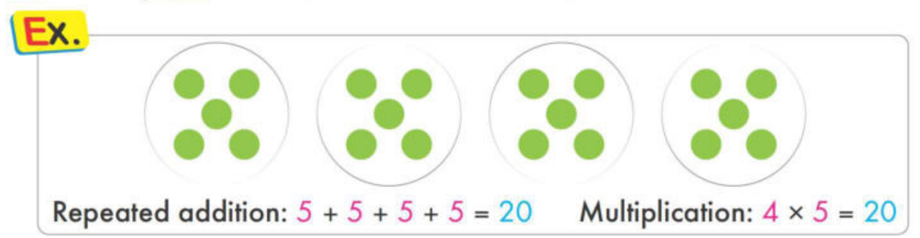
The total number of ducks is: $3 + 3 + 3 + 3 = 12$ ducks.

Adding 3 is repeated four times, so we can use the concept of multiplication:



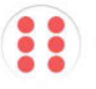
Activity 1 Complete as in the example:

Ex.



Repeated addition: $5 + 5 + 5 + 5 = 20$ Multiplication: $4 \times 5 = 20$

Product	ناتج الضرب	Multiplication	الضرب	Symbol	رمز
Concept	مفهوم	Times	مرات	Factor	عامل
Repeated addition			الجمع المتكرر		

ⓐ    

Repeated addition:

6 + 6 + 6 + 6 = 24.

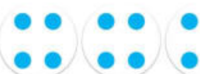
Multiplication: 4 × 6 = 24.

ⓑ   

Repeated addition:

5 + 5 + 5 = 15.

Multiplication: 3 × 5 = 15.

ⓒ  

Repeated addition:

4 + 4 + 4 + 4 + 4 = 20.

Multiplication: 5 × 4 = 20.

Activity 2 Complete as in the example:

Ex. 5 + 5 + 5 + 5 + 5 + 5 = 30 **So,** 5 × 6 = 30 and 6 × 5 = 30

ⓐ 3 + 3 + 3 + 3 + 3 + 3 = 18

So, 6 × 3 = 18 and 3 × 6 = 18

ⓑ 4 + 4 + 4 + 4 + 4 = 20

So, 5 × 4 = 20 and 4 × 5 = 20

ⓒ 6 + 6 + 6 = 18

So, 3 × 6 = 18 and 6 × 3 = 18

ⓓ 2 + 2 + 2 + 2 = 8

So, 4 × 2 = 8 and 2 × 4 = 8

ⓔ 7 × 4 = 4 + 4 + 4 + 4 + 4 + 4 + 4

ⓕ 7 × 4 = 7 + 7 + 7 + 7

ⓖ 5 × 8 = 8 + 8 + 8 + 8 + 8

ⓗ 3 × 6 = 3 + 3 + 3 + 3 + 3 + 3

Learn

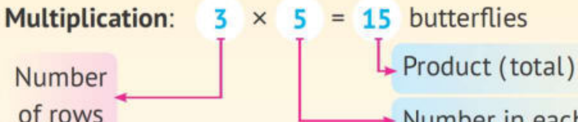
The Array and Multiplication

3 rows of 5 butterflies.

To find the total number of butterflies, we can use:

Repeated addition: 5 + 5 + 5 = 15 butterflies

Multiplication: 3 × 5 = 15 butterflies



We say: 3 times 5 equals 15

---

5 columns of 3 butterflies.



To find the total number of butterflies, we can use:

Repeated addition: 3 + 3 + 3 + 3 + 3 = 15 butterflies

Multiplication: 5 × 3 = 15 butterflies

Number of columns

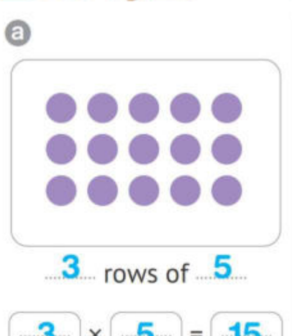
Product (total)

Number in each column

We say: 5 times 3 equals 15

Activity 3 Complete each of the following:

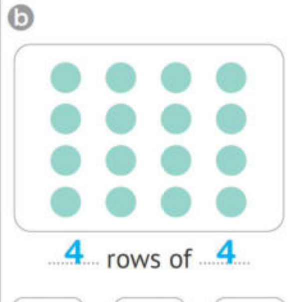
a



3 rows of 5

3 × 5 = 15

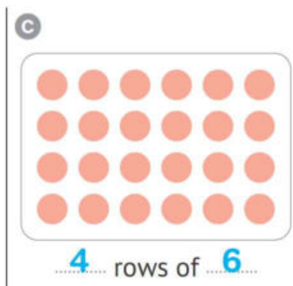
b



4 rows of 4

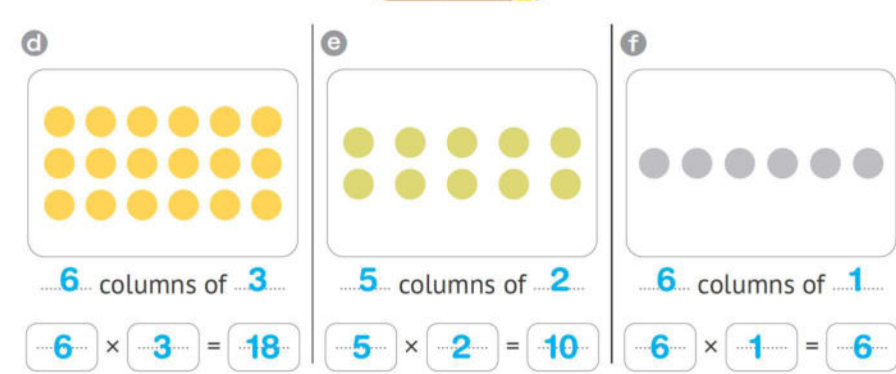
4 × 4 = 16

c



4 rows of 6

4 × 6 = 24



Activity 4

Draw an array that matches the multiplication.

Then use repeated addition to find the product of the multiplication:

a) 5 × 4

Add: 4 + 4 + 4 + 4 + 4

= 20

b) 3 × 6

Add: 6 + 6 + 6

= 18

c) 4 × 5

Add: 5 + 5 + 5 + 5

= 20

d) 6 × 3

Add: 3 + 3 + 3 + 3 + 3 + 3

= 18



Lesson 7 Commutative Property in Multiplication

خاصية الإبدال في الضرب

Learn

The following array is

4 rows of 3 fish.

Add:

$3 + 3 + 3 + 3 = 12$

Multiply:

$4 \times 3 = 12$



The following array is

4 rows of 3 fish.

Add:

$4 + 4 + 4 = 12$

Multiply:

$3 \times 4 = 12$



So, $3 \times 4 = 4 \times 3 = 12$

This means:

Switching the factors of the multiplication operation does not affect the product of the multiplication, and it is called:

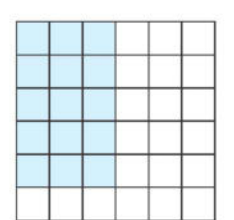
The Commutative Property of Multiplication

تبديل أماكن عوامل عملية الضرب لا يؤثر على ناتج الضرب، وهذا يُسمى: **خاصية الإبدال في الضرب**



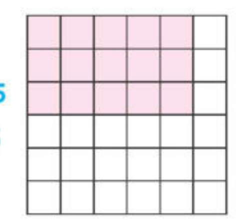
5 rows of 3

$5 \times 3 = 15$



3 rows of 5

$3 \times 5 = 15$



So, $5 \times 3 = 3 \times 5$

Property	خاصية	Commutative	الإبدال



Activity 1

Complete using the Commutative Property of Multiplication:

a



2 rows of 4

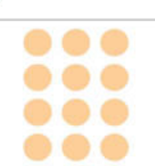
2 × 4 = 8

4 rows of 2

4 × 2 = 8

So, 2 × 4 = 4 × 2

b



4 rows of 3

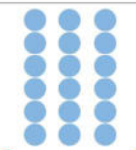
4 × 3 = 12

3 rows of 4

3 × 4 = 12

So, 4 × 3 = 3 × 4

c



6 rows of 3

6 × 3 = 18

3 rows of 6

3 × 6 = 18

So, 6 × 3 = 3 × 6

d



6 rows of 1

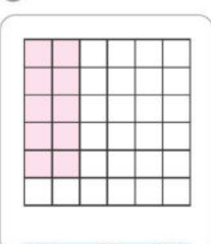
6 × 1 = 6

1 rows of 6

1 × 6 = 6

So, 6 × 1 = 1 × 6

e

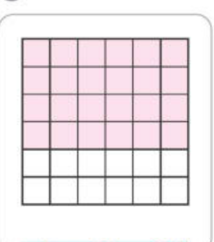


5 × 2 = 10

2 × 5 = 10

So, 5 × 2 = 2 × 5

f



4 × 6 = 24

6 × 4 = 24

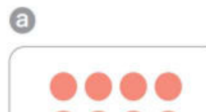
So, 4 × 6 = 6 × 4



Activity 2

Write the multiplication sentence of each array, then draw the array that shows the Commutative Property:

ⓐ

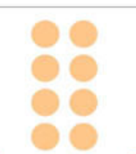


3 rows of 4 — 4 rows of 3

$3 \times 4 = 12$ — $4 \times 3 = 12$

So, $3 \times 4 = 4 \times 3$

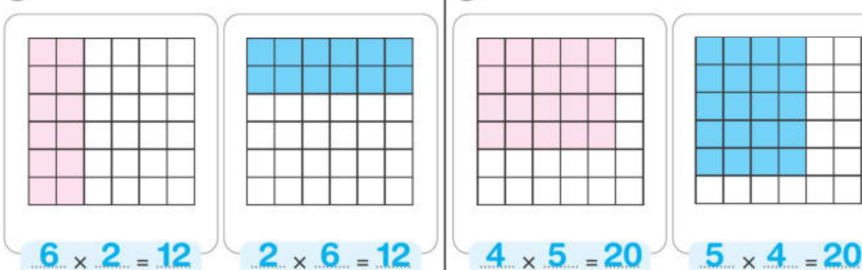
ⓑ



4 rows of 2 — 2 rows of 4

$4 \times 2 = 8$ — $2 \times 4 = 8$

So, $4 \times 2 = 2 \times 4$

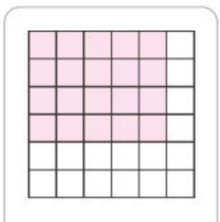


ⓒ

$6 \times 2 = 12$ — $2 \times 6 = 12$

So, $6 \times 2 = 2 \times 6$

ⓓ



$4 \times 5 = 20$ — $5 \times 4 = 20$

So, $4 \times 5 = 5 \times 4$

Activity 3 Complete the following:

ⓐ $5 \times 9 =$ 9 $\times 5$

ⓑ $7 \times 2 = 2 \times$ 7

ⓒ 6 $\times 3 = 3 \times 6$

ⓓ $8 \times$ 3 $= 3 \times 8$

ⓔ If $3 + 3 + 3 + 3 + 3 + 3 + 3 =$ 21, then $7 \times 3 =$ 21.

And if $7 + 7 + 7 =$ 21, then $3 \times 7 =$ 21.

So, 7 $\times$ 3 $=$ 3 $\times$ 7



Lessons 1&2 Word Problems and Applications on Multiplication

Outcomes:
- Using a variety of strategies to solve multiplication story problems.
- Explaining elements of multiplication story problems.
- Recording a multiplication equation to match a story problem.
- Skip counting by 4s.
- Matching multiplication equations to story problems.
- Writing a multiplication story problem that matches a given equation.



Lessons 3&4 Multiples

Outcomes:
- Explaining the rules for multiplying by 0 and 1.
- Identifying common multiples of 2 and 3.
- Predicting common multiples of 2 and 3, greater than 120.
- Using evidence to justify and explain mathematical thinking.
- Identifying the multiples of 5 and 10.
- Identifying numerical patterns when multiplying by 5 and 10.
- Explaining the relationship between skip counting and multiplication facts.



Lesson 5 Factors of a Number Using Arrays

Outcomes:
- Exploring the relationship between multiples of 2, 3, and 6.
- Model the Commutative Property of Multiplication using arrays.
- Identifying factor pairs using arrays.



Lessons 6&7 Time – Applications on Time

Outcomes:
- Skip counting by 5s.
- Explaining the relationship between skip counting by 5s and telling time to 5-minute increments on an analog clock.
- Reading and writing time in 5-minute increments on an analog clock.
- Using a variety of strategies to tell time to 5-minute increments.
- Analyzing and correcting an incorrect time.



Lessons 8&9 Division – Applications on Division

Outcomes:
- Using manipulatives to model division.
- Explain the relationship between sharing equally and dividing.
- Using a variety of strategies to solve sharing division problems.
- Using a variety of strategies to solve division problems.
- Explaining their thinking when solving division problems.
- Discussing the importance of perseverance.

Lesson 10 The Relation Between Multiplication and Division

Outcomes:
- Describing the relationship between factors and their product.
- Using the division symbol.
- Applying the relationship between multiplication and division to identify fact families.
- Solving division problems with one unknown.



Word Problems and Applications on Multiplication

مسائل كلامية وتطبيقات حياتية على الضرب



To solve story problems on multiplication, one of the following strategies is followed, as in the example.

Ex.

Ahmed went to the market **4 times**, each time he bought **6 eggs**.
How many eggs did Ahmed buy?

First: **Using Repeated Addition Strategy:**

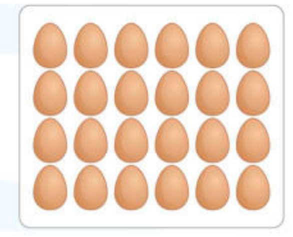
Number of eggs: 6 + 6 + 6 + 6 = 24 eggs

Second: **Using Skip Counting Strategy:**



Number of eggs: 24 eggs

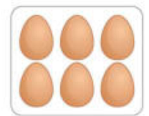
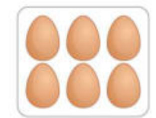
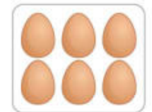
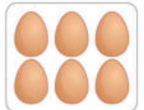
Third: **Using Array Strategy:**



Number of eggs: 4 × 6 = 24 eggs

Number of eggs: 6 × 4 = 24 eggs

Fourth: **Using the Equal Groups Strategy:**

Number of eggs: 4 × 6 = 24 eggs





Use the strategy you prefer to solve the following story problems:

Work Space

ⓐ Farha went to the store to buy rolls for a big family dinner. At the store, she bought 4 bags of rolls. Each bag contained 5 rolls. How many rolls did Farha buy?

4 X 5 = 20 rolls

ⓑ Manal brought 6 bags of cookies to school. Each bag had 3 cookies in it. How many cookies were there altogether?

6 X 3 = 18 cookies

ⓒ Malek runs 3 miles each day. How many miles does he run in 7 days?

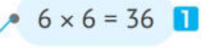
7 X 3 = 21 miles

ⓓ A bag of oranges contains 4 oranges. How many oranges are in 8 bags?

8 X 4 = 32 oranges



Match each story problem to its multiplication equation:



a. Mariam had 4 sweaters. Each sweater had 3 buttons on it.
How many total buttons are there on all the sweaters?

b. Rana packed 6 boxes full of cans. Each box had 6 cans.
How many total cans did Rana pack?

c. Amir hiked for 3 days over the summer. Each day he hiked 7 miles.
How many miles did he hike in all?

1. $6 \times 6 = 36$
2. $3 \times 7 = 21$
3. $4 \times 3 = 12$



Write a multiplication story for each multiplication sentence, then solve it.

a. 5×3

(Any story that contains 5 X 3 is accepted.)
A bag of oranges contains 3 oranges. How many oranges are there in 5 bags.
$5 \times 3 = 15$ oranges

b. 4×6

Each chair has four legs.
How many legs are there in 6 chairs
$6 \times 4 = 24$ legs





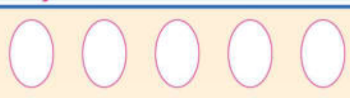
Multiples

المضاعفات

Learn

Multiplication by Zero

Any number × zero = zero



Ex. $5 \times 0 = 0 + 0 + 0 + 0 + 0 = 0$

$6 \times 0 = 0$ $0 \times 10 = 0$

$9 \times 0 = 0$ $0 \times 18 = 0$

Multiplication by One

Any number × 1 = the same number



Ex. $5 \times 1 = 1 + 1 + 1 + 1 + 1 = 5$

$3 \times 1 = 3$ $1 \times 2 = 2$

$4 \times 1 = 4$ $1 \times 99 = 99$

Activity 1 Find the product:

ⓐ $5 \times 0 =$ 0 ⓑ $4 \times 1 =$ 4

ⓒ $7 \times 0 =$ 0 ⓓ $3 \times 1 =$ 3

ⓔ $1 \times 8 =$ 8 ⓕ $0 \times 9 =$ 0

ⓖ $1 \times 15 =$ 15 ⓗ $0 \times 12 =$ 0

Multiples of a number

It is the product of this number multiplied by any integer. You can get multiples of a number by skipping the count by this number.

Learn

Multiples of 2 and 3

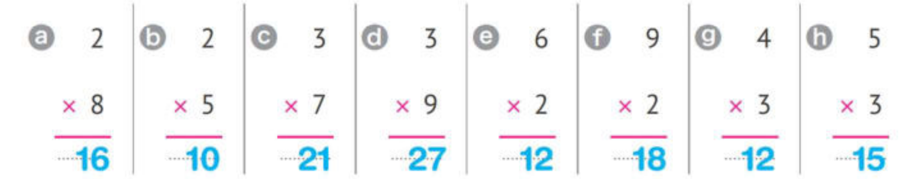
Use the 120 Chart to complete:

111	112	113	114	115	116	117	118	119	120
101	102	103	104	105	106	107	108	109	110
91	92	93	94	95	96	97	98	99	100
81	82	83	84	85	86	87	88	89	90
71	72	73	74	75	76	77	78	79	80
61	62	63	64	65	66	67	68	69	70
51	52	53	54	55	56	57	58	59	60
41	42	43	44	45	46	47	48	49	50
31	32	33	34	35	36	37	38	39	40
21	22	23	24	25	26	27	28	29	30
11	12	13	14	15	16	17	18	19	20
1	2	3	4	5	6	7	8	9	10

a	b
2 × 0 = 0	3 × 0 = 0
2 × 1 = 2	3 × 1 = 3
2 × 2 = 4	3 × 2 = 6
2 × 3 = 6	3 × 3 = 9
2 × 4 = 8	3 × 4 = 12
2 × 5 = 10	3 × 5 = 15
2 × 6 = 12	3 × 6 = 18
2 × 7 = 14	3 × 7 = 21
2 × 8 = 16	3 × 8 = 24
2 × 9 = 18	3 × 9 = 27
2 × 10 = 20	3 × 10 = 30
2 × 11 = 22	3 × 11 = 33
2 × 12 = 24	3 × 12 = 36

Key: Multiples of 2 (blue circle) | Multiples of 3 (pink square) | Common Multiples (blue circle in pink square)

Activity 1 Complete the following:



a	b	c	d	e	f	g	h
2	2	3	3	6	9	4	5
× 8	× 5	× 7	× 9	× 2	× 2	× 3	× 3
16	10	21	27	12	18	12	15

Activity 2 Complete the following:

a) 2 × 6 = 12
b) 4 × 3 = 12
c) 7 × 3 = 21
d) 2 × 9 = 18
e) 2 × 7 = 14
f) 3 × 3 = 9
g) 6 + 6 + 6 = 6 × 3 = 18
h) 8 + 8 + 8 = 3 × 8 = 24
i) 10 = 5 + 5 = 2 × 5
j) 16 = 8 + 8 = 2 × 8



Learn

Multiples of 4 and 5

Use the 120 Chart to complete:

111	112	113	114	115	116	117	118	119	120
101	102	103	104	105	106	107	108	109	110
91	92	93	94	95	96	97	98	99	100
81	82	83	84	85	86	87	88	89	90
71	72	73	74	75	76	77	78	79	80
61	62	63	64	65	66	67	68	69	70
51	52	53	54	55	56	57	58	59	60
41	42	43	44	45	46	47	48	49	50
31	32	33	34	35	36	37	38	39	40
21	22	23	24	25	26	27	28	29	30
11	12	13	14	15	16	17	18	19	20
1	2	3	4	5	6	7	8	9	10

a	b
4 × 0 = 0	5 × 0 = 0
4 × 1 = 4	5 × 1 = 5
4 × 2 = 8	5 × 2 = 10
4 × 3 = 12	5 × 3 = 15
4 × 4 = 16	5 × 4 = 20
4 × 5 = 20	5 × 5 = 25
4 × 6 = 24	5 × 6 = 30
4 × 7 = 28	5 × 7 = 35
4 × 8 = 32	5 × 8 = 40
4 × 9 = 36	5 × 9 = 45
4 × 10 = 40	5 × 10 = 50
4 × 11 = 44	5 × 11 = 55
4 × 12 = 48	5 × 12 = 60

Key: Multiples of 4 | Multiples of 5 | Common Multiples

Activity 1 Complete the following:

a	b	c	d	e	f	g	h
5	5	4	4	6	9	4	4
× 8	× 5	× 7	× 9	× 5	× 5	× 4	× 5
40	25	28	36	30	45	16	20

Activity 2 Complete the following:

a) 5 × 8 = 40
b) 4 × 10 = 40
c) 8 × 4 = 32
d) 4 × 6 = 24
e) 5 × 7 = 35
f) 4 × 9 = 36
g) 5 + 5 = 2 × 5 = 10
h) 4 + 4 + 4 = 3 × 4 = 12
i) 1 + 1 + 1 + 1 = 4 × 1 = 4
j) 8 + 8 + 8 = 4 × 6 = 24
k) 30 = 10 + 10 + 10 = 5 × 6
l) 28 = 7 + 7 + 7 + 7 = 4 × 7

Learn

Multiples of 6 and 7

Use the 120 Chart to complete:

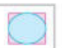
111	112	113	114	115	116	117	118	119	120
101	102	103	104	105	106	107	108	109	110
91	92	93	94	95	96	97	98	99	100
81	82	83	84	85	86	87	88	89	90
71	72	73	74	75	76	77	78	79	80
61	62	63	64	65	66	67	68	69	70
51	52	53	54	55	56	57	58	59	60
41	42	43	44	45	46	47	48	49	50
31	32	33	34	35	36	37	38	39	40
21	22	23	24	25	26	27	28	29	30
11	12	13	14	15	16	17	18	19	20
1	2	3	4	5	6	7	8	9	10

a	b
6 × 0 = 0	7 × 0 = 0
6 × 1 = 6	7 × 1 = 7
6 × 2 = 12	7 × 2 = 14
6 × 3 = 18	7 × 3 = 21
6 × 4 = 24	7 × 4 = 28
6 × 5 = 30	7 × 5 = 35
6 × 6 = 36	7 × 6 = 42
6 × 7 = 42	7 × 7 = 49
6 × 8 = 48	7 × 8 = 56
6 × 9 = 54	7 × 9 = 63
6 × 10 = 60	7 × 10 = 70
6 × 11 = 66	7 × 11 = 77
6 × 12 = 72	7 × 12 = 84

Key:

Multiples of 6 

Multiples of 7

Common Multiples 

Activity 1 Complete the following:

a 7 × 8 = 56	b 5 × 7 = 35	c 6 × 8 = 48	d 6 × 9 = 54	e 6 × 7 = 42	f 7 × 4 = 28	g 6 × 6 = 36	h 4 × 6 = 24
i 6 × 2 = 12	j 7 × 7 = 49	k 6 × 3 = 18	l 7 × 2 = 14	m 5 × 6 = 30	n 3 × 7 = 21	o 6 × 2 = 12	p 7 × 5 = 35

Activity 2 Complete in the same pattern:

ⓐ 0 , 2 , 4 , 6 , 8 , 10 , 12 , 14 , 16 , 18 , 20

ⓑ 0 , 4 , 8 , 12 , 16 , 20 , 24 , 28 , 32 , 36 , 40

ⓒ 0 , 6 , 12 , 18 , 24 , 30 , 36 , 42 , 48 , 54 , 60

ⓓ 0 , 7 , 14 , 21 , 28 , 35 , 42 , 49 , 56 , 63 , 70

Activity 3 Complete:

ⓐ 7 + 7 + 7 + 7 = 4 × 7 = 28

ⓑ 8 + 8 + 8 + 8 + 8 + 8 = 6 × 8 = 48

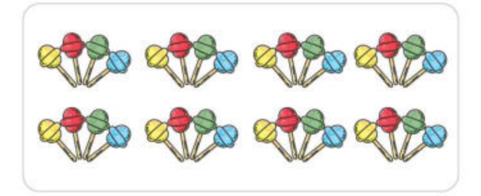
ⓒ 8 × 7 = 7 × 8 = 56

ⓓ 9 + 9 + 9 + 9 = 6 × 6 = 36

ⓔ 5 + 5 + 5 + 5 + 5 + 5 + 5 + 5 = 8 × 5 = 40

Activity 4

Mr. Sameh gave 4 lollipops to each of his 8 students. How many lollipops did Mr. Sameh have at first?



8 × 4 = 32

Activity 5

How many eggs are there in the opposite carton?



6 × 5 = 30

Learn

Multiples of 8, 9 and 10

Use the 120 Chart to complete:

111	112	113	114	115	116	117	118	119	120
101	102	103	104	105	106	107	108	109	110
91	92	93	94	95	96	97	98	99	100
81	82	83	84	85	86	87	88	89	90
71	72	73	74	75	76	77	78	79	80
61	62	63	64	65	66	67	68	69	70
51	52	53	54	55	56	57	58	59	60
41	42	43	44	45	46	47	48	49	50
31	32	33	34	35	36	37	38	39	40
21	22	23	24	25	26	27	28	29	30
11	12	13	14	15	16	17	18	19	20
1	2	3	4	5	6	7	8	9	10

a	b	c
8 × 0 = 0	9 × 0 = 0	10× 0 = 0
8 × 1 = 8	9 × 1 = 9	10× 1 = 10
8 × 2 = 16	9 × 2 = 18	10× 2 = 20
8 × 3 = 24	9 × 3 = 27	10× 3 = 30
8 × 4 = 32	9 × 4 = 36	10× 4 = 40
8 × 5 = 40	9 × 5 = 45	10× 5 = 50
8 × 6 = 48	9 × 6 = 54	10× 6 = 60
8 × 7 = 56	9 × 7 = 63	10× 7 = 70
8 × 8 = 64	9 × 8 = 72	10× 8 = 80
8 × 9 = 72	9 × 9 = 81	10× 9 = 90
8 × 10 = 80	9 × 10 = 90	10×10 = 100
8 × 11 = 88	9 × 11 = 99	10×11 = 110
8 × 12 = 96	9 × 12 = 108	10×12 = 120

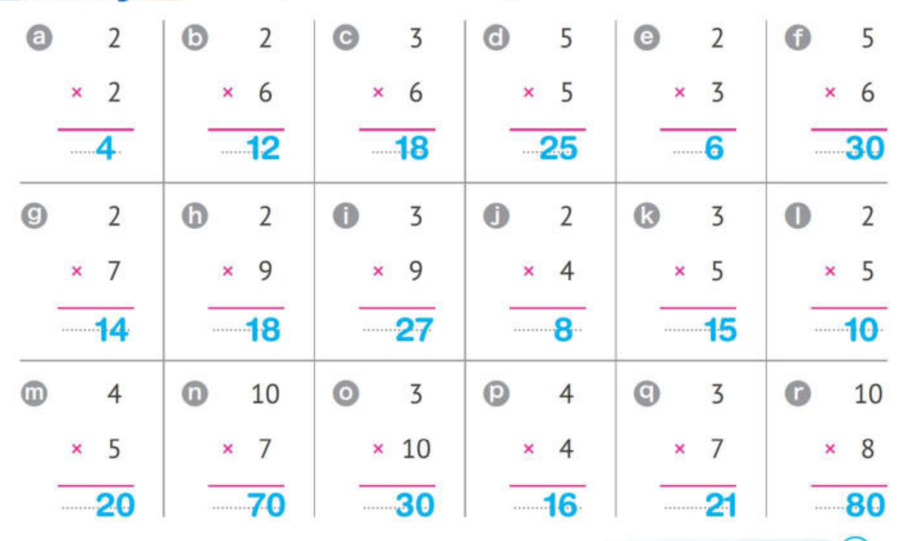
Key:

Multiples of 6 

Multiples of 7

Common Multiples 

Activity 1 Complete the following:



ⓐ 2 × 2 = 4	ⓑ 2 × 6 = 12	ⓒ 3 × 6 = 18	ⓓ 5 × 5 = 25	ⓔ 2 × 3 = 6	ⓕ 5 × 6 = 30
ⓖ 2 × 7 = 14	ⓗ 2 × 9 = 18	ⓘ 3 × 9 = 27	ⓙ 2 × 4 = 8	ⓚ 3 × 5 = 15	ⓛ 2 × 5 = 10
ⓜ 4 × 5 = 20	ⓝ 10 × 7 = 70	ⓞ 3 × 10 = 30	ⓟ 4 × 4 = 16	ⓠ 3 × 7 = 21	ⓡ 10 × 8 = 80



Activity 2 Complete in the same pattern:

ⓐ 30 , 27 , 24 , 21 , 18 , 15 , 12 , 9 , 6 , 3

ⓑ 50 , 45 , 40 , 35 , 30 , 25 , 20 , 15 , 10 , 5

ⓒ 70 , 63 , 56 , 49 , 42 , 35 , 28 , 21 , 14 , 7

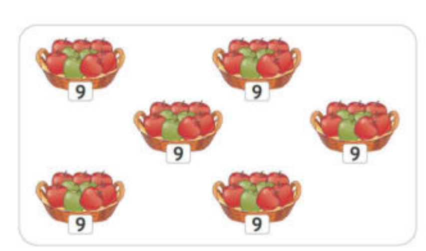
ⓓ 90 , 81 , 72 , 63 , 54 , 45 , 36 , 27 , 18 , 9

Activity 3

ⓐ There are 9 apples in each box.

How many apples are in 6 boxes?

6 × 9 = 54

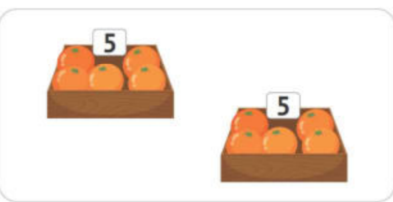


ⓑ Eman has 2 boxes of oranges.

Each box contains 5 oranges.

How many oranges does Eman have?

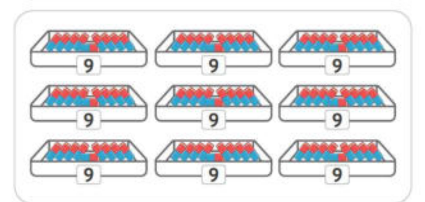
2 × 5 = 10



ⓒ There are 9 erasers in each box.

How many erasers are in 9 boxes?

9 × 9 = 81



Activity 4 Complete the following:

ⓐ 2 × 10 = 20 ⓑ 4 × 0 = 0 ⓒ 7 × 10 = 70

ⓓ 1 × 9 = 9 ⓔ 10 × 4 = 40 ⓕ 3 × 3 = 9

ⓖ 10 + 10 + 10 + 10 = 4 × 10 = 40

ⓗ 10 + 10 + 10 + 10 + 10 + 10 = 6 × 10 = 60

ⓘ 7 + 7 + 7 + 7 + 7 + 7 + 7 + 7 + 7 + 7 = 10 × 7 = 70



1. All multiples of 2 have a ones digit (0, 2, 4, 6, or 8).

Ex. (2, 4, 6, 8, 10, 12, 14, 16, 18, 20, ...)

---

2. All multiples of the number (6) are common multiples of the number (2, 3).

Ex.

Multiples of 2: 2 , 4 , 6 , 8 , 10 , 12 , 14 , 16 , 18 , 20 , ...

Multiples of 3: 3 , 6 , 9 , 12 , 15 , 18 , ...

Multiples of 6: 6 , 12 , 18 , 20 , ...

---

3. All multiples of 5 have a ones digit (0 or 5).

Ex. (5, 10, 15, 20, 25, 30, 35, ...)

---

4. All multiples of 10 have a ones digit (0).

Ex. (10, 20, 30, 40, 50, 60, ...)





Factors of a Number Using Arrays

عوامل العدد باستخدام المصفوفات

Learn

Factors of a Number

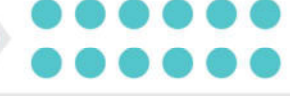
Factors are the numbers that are multiplied to get a given number.

Ex. Find the factors of 12:

$1 \times 12 = 12$ Or $12 \times 1 = 12$



$2 \times 6 = 12$ Or $6 \times 2 = 12$



$4 \times 3 = 12$ Or $3 \times 4 = 12$

So, the number 12 can be arranged in different ways into arrays:

$12 = 1 \times 12$ $12 = 2 \times 6$ $12 = 3 \times 4$

The factors of 12 are 1 , 2 , 3 , 4 , 6 and 12



The factors of a number are written without repetition.

Ex. Write the factor pairs of 16:

$16 = 1 \times 16$	$16 = 2 \times 8$	$16 = 4 \times 4$	$16 = 8 \times 2$	$16 = 16 \times 1$

So, the factors of 16 are: 1 , 2 , 4 , 8 and 16.

Activity 1 Write the factor pairs and factors of each number:

ⓐ **6**

1 × 6 | 6 × 1

2 × 3 | 3 × 2

Factors are 1, 2, 3, 6 .

ⓑ **8**

1 × 8 | 8 × 1

2 × 4 | 4 × 2

Factors are 1, 2, 4, 8 .

ⓒ **18**

1 × 18 | 18 × 1

2 × 9 | 9 × 2

3 × 6 | 6 × 3

Factors are 1, 2, 3, 6, 9, 18

ⓓ **25**

25 × 1 | 1 × 25

5 × 5

Factors are 1, 5, 25 .

Activity 2 Complete:

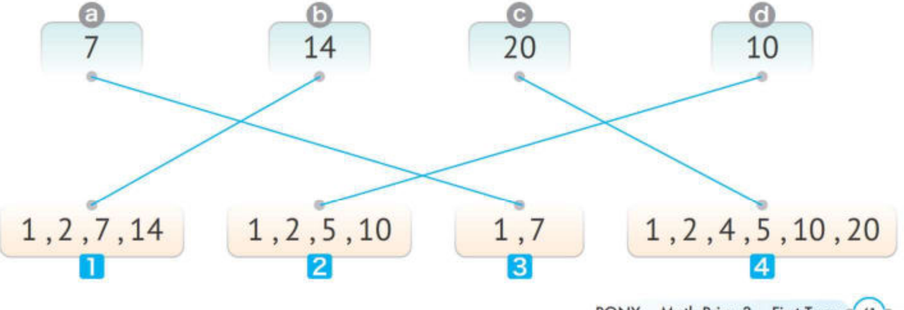
ⓐ The number 5 has 2 factor (s).

ⓑ The number 1 has 1 factor (s).

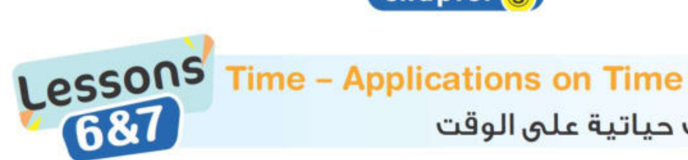
ⓒ The number 9 has 3 factor (s).

ⓓ 1 , 2 , 3 , 6 are the factors of number 6 .

Activity 3 Match each number with its factors:







Lessons 6&7 Time – Applications on Time

الوقت – تطبيقات حياتية على الوقت



Remember

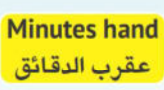
Day 24 Hour

1 Day = 24 Hours

Hour 60 Minute

1 Hour = 60 Minutes

Analog Clock





Digital Clock

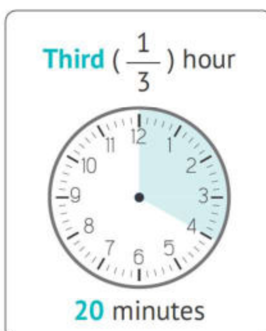
03:00

Hours
الساعات

Minutes
الدقائق

One hour = 60 minutes

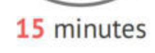
Two hours = 120 minutes



Quarter $(\frac{1}{4})$ hour — 15 minutes

Third $(\frac{1}{3})$ hour — 20 minutes

Half $(\frac{1}{2})$ hour — 30 minutes



How do we tell the time?

1 **We look at the minutes hand and count by skipping 5 to the number where the minutes hand stands:**





If the **minutes hand** is in the **left half**, we say **"to"**

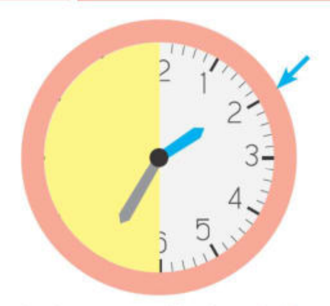
25 to ....

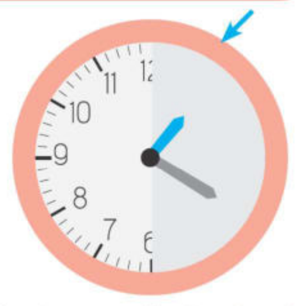
If the **minutes hand** is in the **right half**, we say **"past"**

20 past ....



We look at the hours hand and write what it indicates. When the hours hand falls between two numbers:





In the case of using **(to)**, we choose the **largest number.**

25 to 2

In the case of using **(past)**, we choose the **smallest number.**

20 past 1

03:00 It's 3 clock.

03:05 It's 5 past 3.

03:10 It's 10 past 3.

03:15 It's quarter past 3.

03:20 It's 20 past 3.

03:25 It's 25 past 3.

03:30 It's half past 3.

03:35 It's 25 to 4.

03:40 It's 20 to 4.

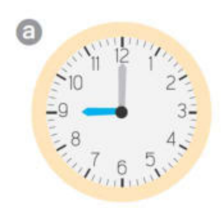
03:45 It's quarter to 4.

03:50 It's 10 to 4.

03:55 It's 5 to 4.

04:00 It's 4 clock.

Activity 1 Write the time shown on the digital clock and in words:

ⓐ


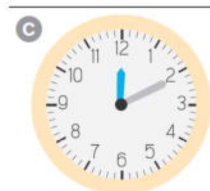
9 : 00

9 o'clock

ⓑ

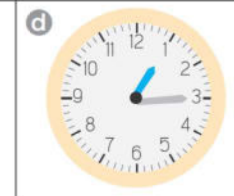

6 : 05

5 past 6

ⓒ


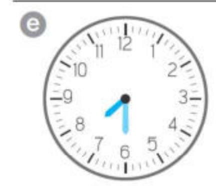
12 : 10

10 past 12

ⓓ


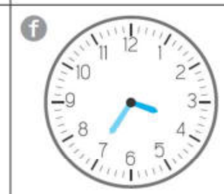
1 : 15

Quarter past 1

ⓔ


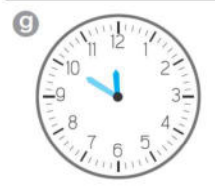
07:30

Half past 7

ⓕ


03:35

25 to 4

ⓖ


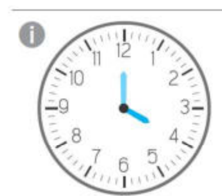
11:50

10 to 12

ⓗ


10:45

Quarter to 11

ⓘ


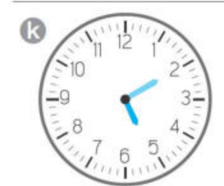
4 : 00

It's 4 o'clock.

ⓙ

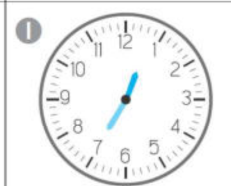

7 : 20

It's 20 past 7.

ⓚ


5 : 10

It's 10 past 5.

ⓛ


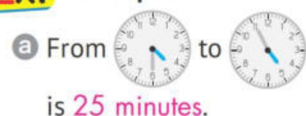
12 : 35

It's 25 to 1.

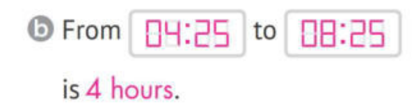




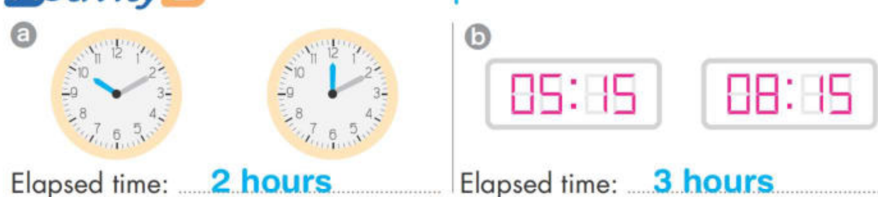
Ex. To elapsed time:

ⓐ From  to is 25 minutes.

ⓑ From 04:25 to 08:25 is 4 hours.



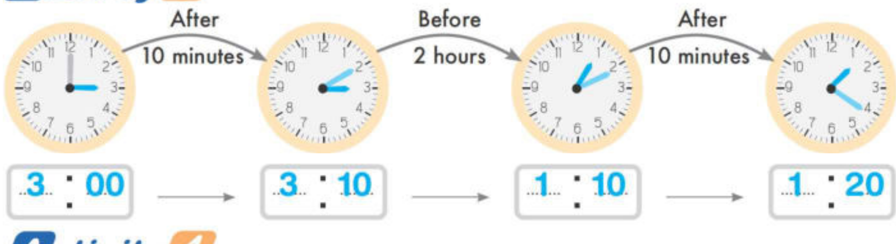
Activity 2 Calculate the elapsed time between the two clocks:



ⓐ Elapsed time: 2 hours

ⓑ 05:15 08:15 Elapsed time: 3 hours

Activity 3 Draw the time on each clock:



3 : 00 → 3 : 10 → 1 : 10 → 1 : 20

Activity 4

Reham started studying at 4:00 and when she finished it was 4:40 . How many minutes did Reham take to study?

40 minutes



Activity 5

You leave school at 3:00 and when you get home the clock is as the opposite figure:

How many minutes did it take you to walk home?

20 minutes



Activity 6

If it takes you 45 minutes to walk home from school and you leave at 3:00. What time will it be when you get home? Draw the time on the clock.



Quarter to 4 03:45





Division – Applications on Division

مفهوم القسمة – تطبيقات حياتية على القسمة

Division is the distribution of a number of things into equal groups.

القسمة هي تقسيم عدد أو أشياء بالتساوي.



There are 12 apples that need to be divided equally between 3 baskets.
Draw a part-part-whole model to show the answer:

To divide the apples:

- We draw 3 circles.
- Draw one apple in each circle.
- Repeat the same step as before until all the apples are distributed.

Each basket will contain 4 apples

The following model is called a part-part-whole



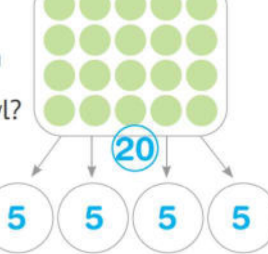
We can express the division process as follows





Activity 1 Answer the following:

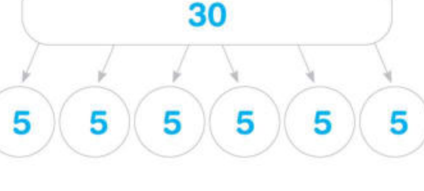
ⓐ There are 20 fish that need to be placed equally in 4 bowls. How many fish should be put in each bowl? Draw a part-part-whole model to show your answer.



20 ÷ 4 = 5

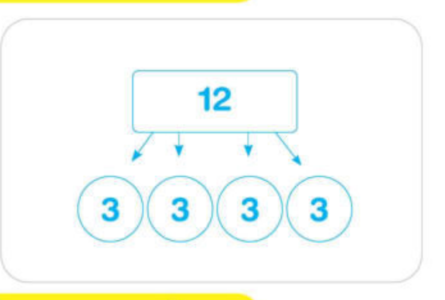
Hint
- Circle each 4 dots together.
- Count the groups.

ⓑ The teacher has 30 crayons to be shared equally between 6 students. What is the share of each? Draw a part-part-whole model to show your answer.



30 ÷ 6 = 5

ⓒ Each cat needs 3 fish for lunch. How many cats will we feed if we have 12 fish? Draw a part-part-whole model to show your answer.



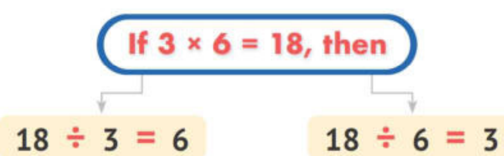
12 ÷ 3 = 4

Activity 2 Divide:

ⓐ 25 ÷ 5 = 5
ⓑ 32 ÷ 4 = 8
ⓒ 35 ÷ 7 = 5
ⓓ 18 ÷ 3 = 6
ⓔ 27 ÷ 3 = 9
ⓕ 45 ÷ 9 = 5
ⓖ 48 ÷ 8 = 6
ⓗ 49 ÷ 7 = 7
ⓘ 54 ÷ 6 = 9

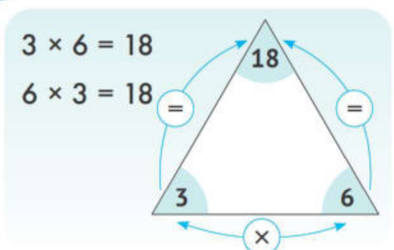


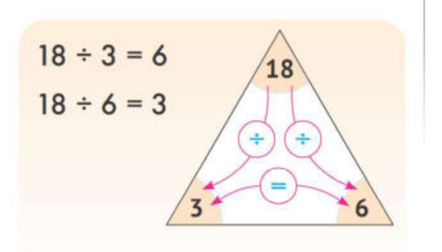
The Relation Between Multiplication and Division العلاقة بين الضرب والقسمة



Multiplication & Division Fact Families

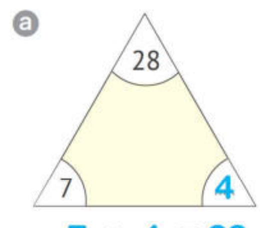






Activity 1 Find the missing factor in the triangles, then write the four equations to complete the fact family:

ⓐ



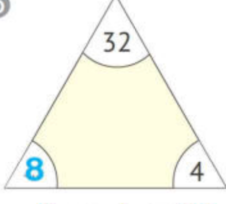
7 × 4 = 28

4 × 7 = 28

28 ÷ 4 = 7

28 ÷ 7 = 4

ⓑ



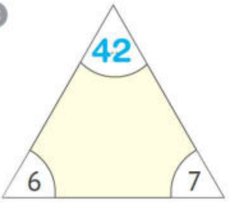
8 × 4 = 32

4 × 8 = 32

32 ÷ 4 = 8

32 ÷ 8 = 4

ⓒ



6 × 7 = 42

7 × 6 = 42

42 ÷ 6 = 7

42 ÷ 7 = 6

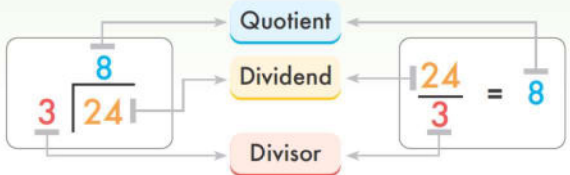


Learn

Different Forms for Division

$24 \div 3 = 8$

24 → Dividend, 3 → Divisor, 8 → Quotient



Activity 2 Divide:

(a) $\frac{10}{2} = 5$ (b) $\frac{30}{5} = 6$ (c) $\frac{8}{4} = 2$

(d) $\frac{32}{8} = 4$ (e) $\frac{9}{3} = 3$ (f) $\frac{42}{6} = 7$

(g) $\frac{64}{8} = 8$ (h) $\frac{72}{8} = 9$ (i) $\frac{45}{9} = 5$

Activity 3 Divide:

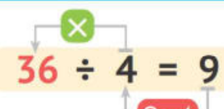
(a) 4 ⟌ 12 → 3 (b) 2 ⟌ 6 → 3 (c) 3 ⟌ 21 → 7

(d) 7 ⟌ 63 → 9 (e) 3 ⟌ 15 → 5 (f) 9 ⟌ 36 → 4

(g) 6 ⟌ 48 → 8 (h) 7 ⟌ 70 → 10 (i) 5 ⟌ 5 → 1

Important Notes:

$35 \div 5 = 7$ ($\times$; $35 \div 7$)



Activity 4 Complete:

ⓐ 12 ÷ 3 = 4 ⓑ 10 ÷ 2 = 5 ⓒ 21 ÷ 7 = 3

ⓓ 45 ÷ 5 = 9 ⓔ 42 ÷ 7 = 6 ⓕ 80 ÷ 8 = 10

ⓖ 27 ÷ 3 = 9 ⓗ 15 ÷ 3 = 5 ⓘ 16 ÷ 2 = 8

ⓙ 36 ÷ 9 = 4 ⓚ 18 ÷ 9 = 2 ⓛ 48 ÷ 8 = 6



The array can be expressed using a multiplication problem or a division problem.

Multiplication

$3 \times 4 = 12$



$4 \times 3 = 12$

Division

$12 \div 3 = 4$



$12 \div 4 = 3$

Activity 5

Express each of the following arrays using one multiplication problem and one division problem:









3 × 5 = 15

15 ÷ 5 = 3









3 × 6 = 18

18 ÷ 6 = 3



Chapter Lessons



Lesson 1 Polygons

Outcomes:
- Identifying the attributes of Two-dimensional Shapes.
- Defining categories based on attributes.
- Sort Two-dimensional Shapes based on their attributes.
- Defining polygon and parallelogram.



Lesson 2 Properties of Quadrilaterals

Outcomes:
- Applying rules to sort quadrilaterals.
- Combining quadrilaterals to create a picture.
- Creating a bar graph representing quadrilaterals to create a picture.

Lesson 3 Area

Outcomes:
- Determining the area of rectangles using strategies related to multiplication.



Lessons 4&5 Rectangles with Equal Area – Area Using Models

Outcomes:
- Creating and describing multiple rectangles with the same area.
- Explain and model the Commutative Property of Multiplication.
- Defining area in their own words.
- Applying strategies to measure area.



Lessons 6&7 Area by Splitting Arrays – Distributive Property on Multiplication

Outcomes:
- Dividing arrays into smaller arrays to solve multiplication problems.
- Explaining why dividing arrays make it easier to solve multiplication problems.
- Model the Distributive Property of Multiplication using arrays.
- Applying the Distributive Property to solve multiplication problems.
- Explaining the Distributive Property of Multiplication.



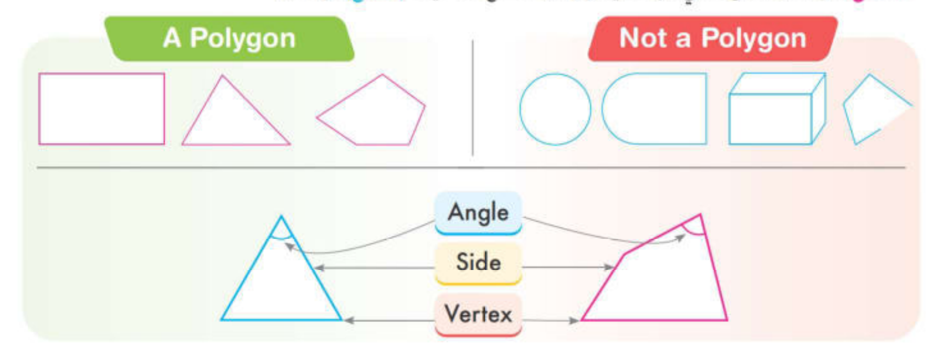
Polygons المضلعات

Learn

Polygon

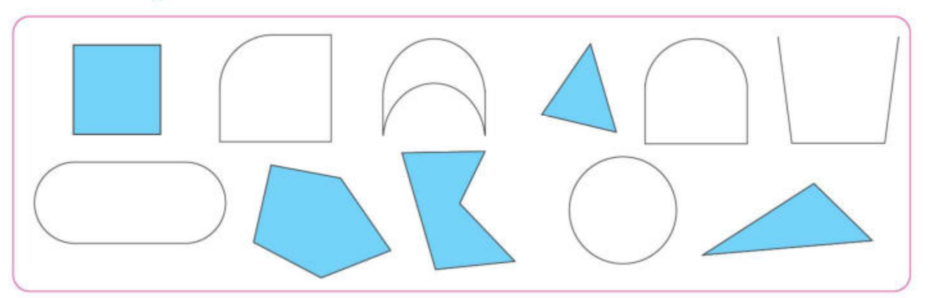
It is a closed shape formed from 3 line segments (sides) or more.

المضلع: هو شكل مغلق ثنائي الأبعاد، يتكون من ٣ قطع مستقيمة (أضلاع) أو أكثر.



In any polygon,
the number of sides = the number of angles = the number of vertices

Activity 1 Color only the polygons:



Line Segment	قطعة مستقيمة	Polygon	مضلع	Angle	زاوية
Vertex	رأس	Side	ضلع		

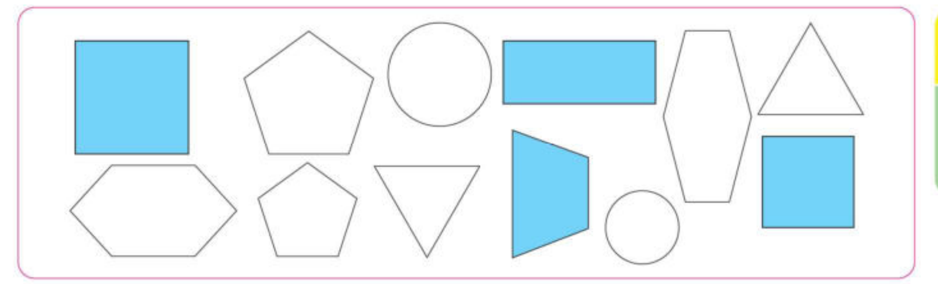


Two-dimensional Shapes (2D-shapes) الأشكال ثنائية الأبعاد

3 Sides	4 Sides	5 Sides	6 Sides	7 Sides	8 Sides
Triangle	Quadrilateral	Pentagon	Hexagon	Heptagon	Octagon

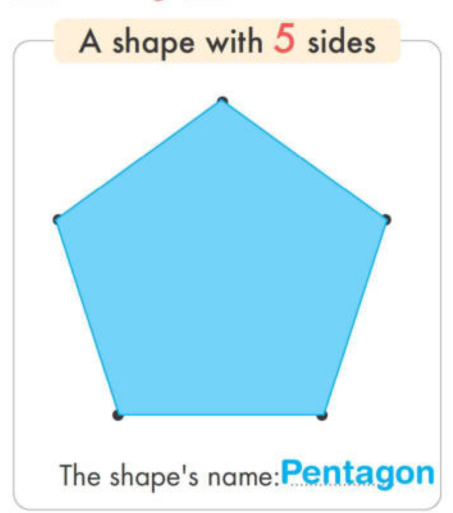
Shape	Name	Attributes		
		Sides	Vertices	Angles
	Circle	0	0	0
	Triangle	3	3	3
	Quadrilateral	4	4	4
	Pentagon	5	5	5
	Hexagon	6	6	6
	Heptagon	7	7	7
	Octagon	8	8	8

Activity 2 Color the quadrilateral shapes (4 sides):



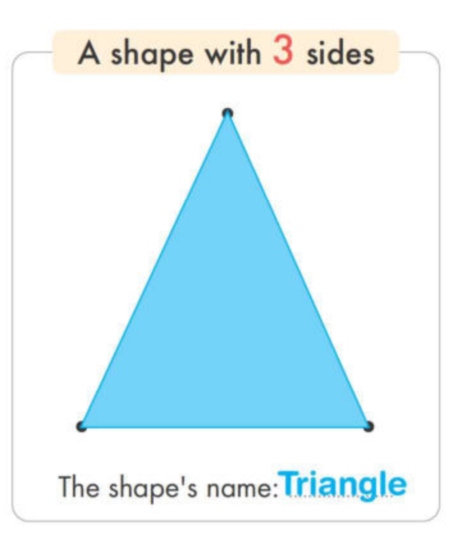
Activity 3 Draw:

A shape with 5 sides



The shape's name: Pentagon

A shape with 3 sides



The shape's name: Triangle

Activity 4 Complete the following sentences:

a) The triangle has ......3...... sides, ...3...... angles, and ......3...... vertices.

b) The pentagon has 5 sides but the hexagon has 6 sides.

c) The octagon has ......8...... angles but the heptagon has 7 sides.

d) The quadrilateral is a polygon that has 4 sides.





Properties of Quadrilaterals

خواص الأشكال الرباعية



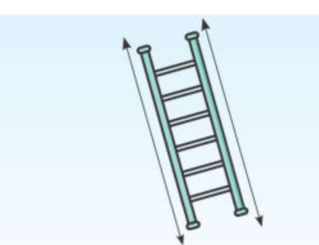
Parallel Lines الخطوط المتوازية

Parallel lines can go on forever and never intersect.

Ex. of parallel lines:

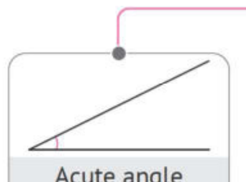


The opposite edges of a TV

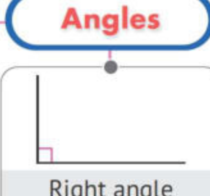


The opposite edges of the wooden ladder

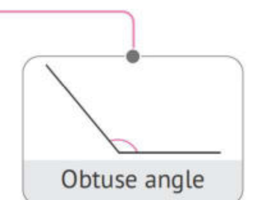
Angles



Acute angle



Right angle



Obtuse angle

Quadrilateral

It is a polygon that has 4 sides, 4 vertices, and 4 angles.



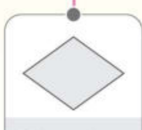
Parallelogram



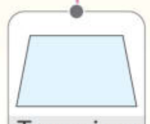
Rectangle



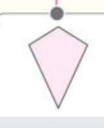
Square



Rhombus



Trapezium
Trapezoid



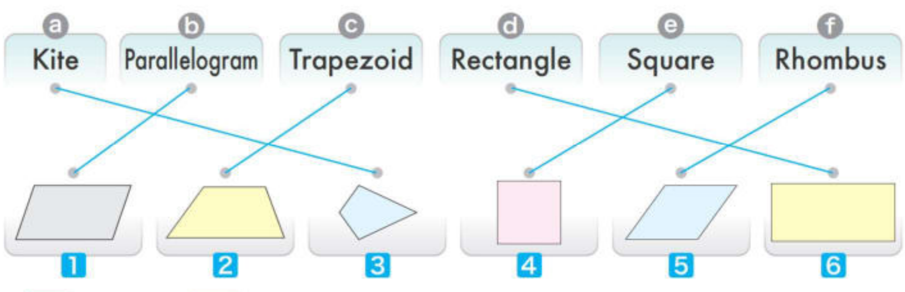
Kite

Quadrilateral	Name	Attributes	
		Sides	**Angles**
	Parallelogram	Each **two opposite sides** are **equal** and **parallel**.	Each **two opposite angles** are **equal**.
	Rectangle	Each **two opposite sides** are **equal** and **parallel**.	**All angles** are **equal**. Each **angle** is **right angle**.
	Square	Each **two opposite sides** are **parallel**. **All sides** are **equal**.	**All angles** are **equal**. Each **angle** is **right angle**.
	Rhombus	Each **two opposite sides** are **parallel**. **All sides** are **equal**.	Each **two opposite angles** are **equal**.
	Trapezium **Trapezoid**	Only **one pair** of **opposite sides** is **parallel**.	
	Kite	**Two pairs** of **adjacent sides** are **equal**.	**One pair** of **opposite angles** is **equal**.

Pair	زوج	Opposite	مقابل
Attributes	خصائص	Adjacent	متجاورة

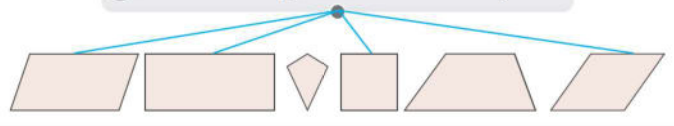


Activity 1 Match each quadrilateral to its name:

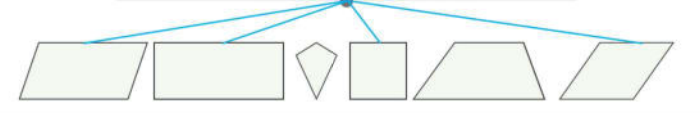


Activity 2 Match each quadrilateral with a compatible property.

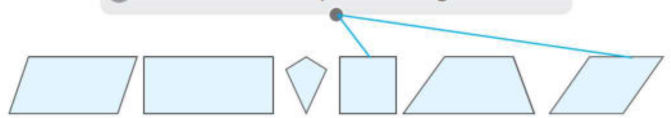
a Each two opposite sides are equal.



b Each two opposite angles are equal.



c All sides are equal in length.



Activity 3 Complete the following sentences:

a All **sides** are **equal** in **square** and **rhombus**

b All **angels** are **equal** in **rectangle** and **square** .

c A **trapezoid** has only **one pair** of **parallel opposite** sides.

d A **kite** has **two pairs** of **equal adjacent sides** and **one pair of equal opposite angles**.



Area المساحة

Area

Learn

It is the number of square units in which the shape is formed.

المساحة: هي عدد الوحدات المربعة التي يتكوَّن منها الشكل.

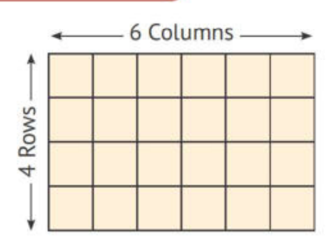
To find the area of a rectangle, we follow one of the following strategies:

First: **Array Strategy:**

Area = Number of rows X Number of columns



Area = 4 X 6
= 24 square units

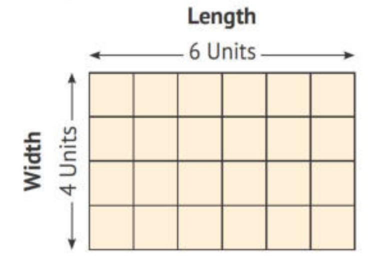


Second: **Length X Width Strategy:**

Area = Length X Width



Area = 6 X 4
= 24 square units

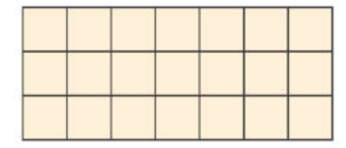


Square units	وحدات مربعة	Area	المساحة
Width	العرض	Length	الطول



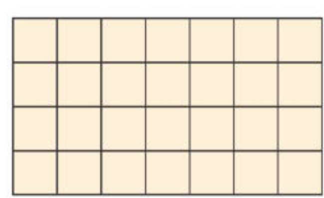
Activity 1 Find the area of each shape:

ⓐ



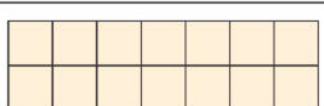
Number of rows = 3 rows
Number of columns = 7 columns
Area = 3 X 7
= 21 square units

ⓑ



Number of rows = 4 rows
Number of columns = 7 columns
Area = 4 X 7
= 28 square units

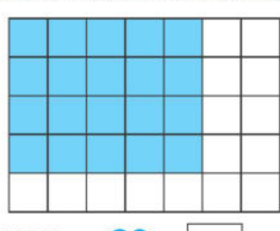
ⓒ Length = 7 units
Width = 2 units
Area = 7 X 2 = 14 square units



Activity 2

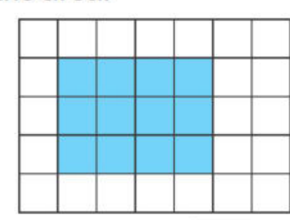
Use the grid to draw a rectangle representing each of the following multiplication sentences. Then calculate the area:

ⓐ



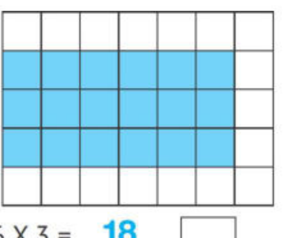
4 X 5 = 20

ⓑ



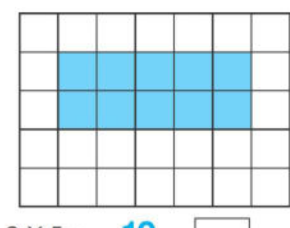
3 X 4 = 12

ⓒ



6 X 3 = 18

ⓓ



2 X 5 = 10



Rectangles with Equal Area – Area Using Models
مستطيلات متساوية المساحة – المساحة باستخدام النماذج

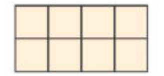


- More than one rectangle can be created with the same area.

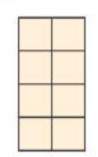
يمكن إنشاء أكثر من مستطيل له نفس المساحة.



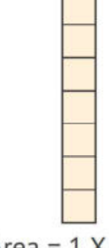
You can draw more than one rectangle with an area of 8 square units each:



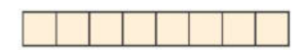
Area = 4 X 2 = 8 square units



Area = 2 X 4 = 8 square units



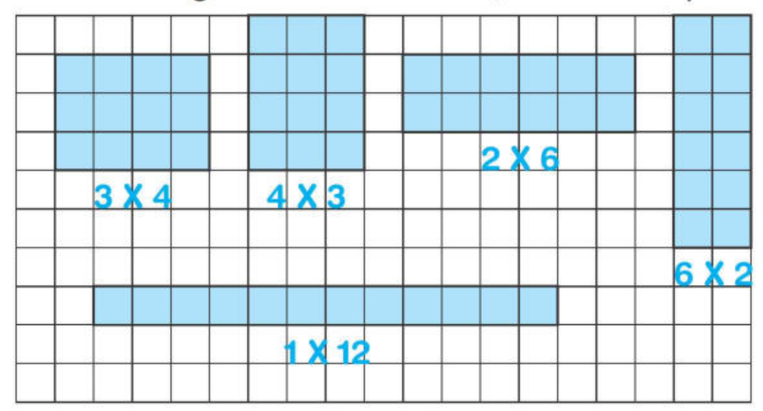
Area = 1 X 8 = 8 square units



Area = 8 X 1 = 8 square units



Draw on the grid as many rectangles as you can get from the same area, which is 12 square units:



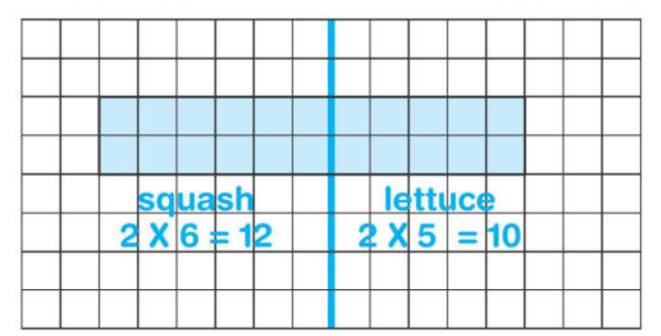
Activity 2

Heba has two rectangular gardens, one for lettuce and one for squash. The squash takes up 12 square units and the lettuce takes up 10 square units. What would her gardens look like?

(Remember, the gardens are rectangles with the same number of square units in each row.)

Draw the gardens below. They must fit on the grid paper.

12 = 2 x 6   10 = 2 x 5





Activity 3

On the grid below, draw and label as many rectangles as you can with the given area. Then, write equations that match your rectangles.

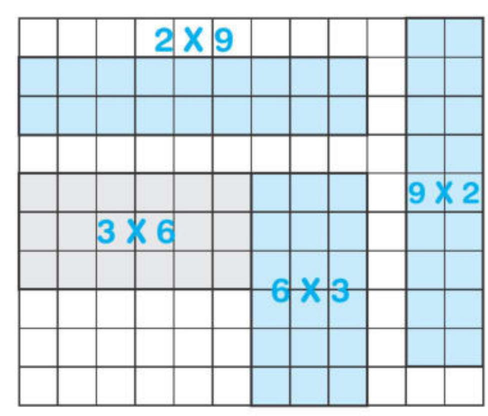
18 square units.

18 = 2 X 9

18 = 9 X 2

18 = 3 X 6

18 = 6 X 3



Area of the Rectangle

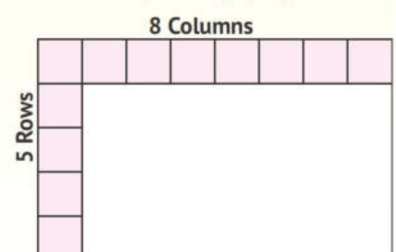
The area of a rectangle or square can be calculated by multiplying its dimensions. (length and width)

The dimensions of the opposite figure are:
5 units (5 rows) and 8 units (8 columns).

Area of the rectangle

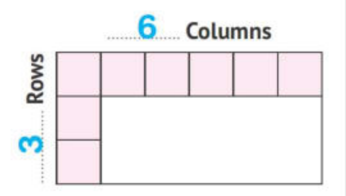
= 5 X 8

= 40 square units



Activity 4 Find the area of each shape:

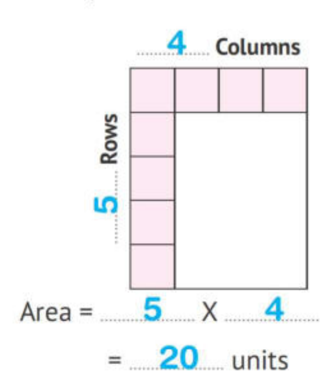
a



Area = 3 X 6

= 18 units

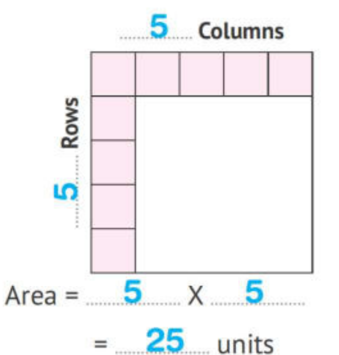
b



Area = 5 X 4

= 20 units

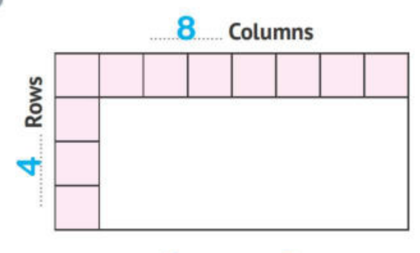
c



Area = 5 X 5

= 25 units

d



Area = 4 X 8

= 32 units





Area by Splitting Arrays – Distributive Property on Multiplication

المساحة بتقسيم المصفوفات – خاصية التوزيع في الضرب

Learn

When dividing the array into two parts, we notice that the sum of their products is equal to the product of the original array.

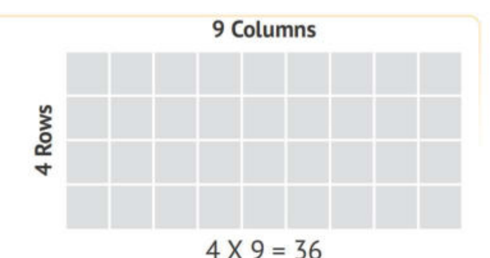
عند تقسيم المصفوفة إلى جزأين نلاحظ أن مجموع حاصل ضربهما يساوي حاصل ضرب المصفوفة الأساسية.

In the opposite array:

Number of rows = 4

Number columns = 9

Area = 4 X 9 = 36



In the following figure:

We divided the array into two parts.

Area of the first part

= 4 X 6 = 24

Area of the other part

= 4 X 3 = 12

4 X 6 | 4 X 3

6 Columns | 3 Columns

4 Rows | 4 Rows

4 X 9

By adding the area of the two parts

Total area = 24 + 12 = 36

From above: 4 X 9 = (4 X 6) + (4 X 3)

36 = 24 + 12 *(Distributive Property)*

Therefore: 4 X 9 = 4 X (6 + 3) = (4 X 6) + (4 X 3)

- We can divide the array in other ways, for example:

4 X 9 = (4 X 2) + (4 X 7)

Therefore:

4 X 9 = 4 X (2 + 7)

= (4 X 2) + (4 X 7)

= 8 + 28 = 36

4 X 2 — 2 Columns — 4 Rows

4 X 7 — 7 Columns — 4 Rows

4 X 9

---

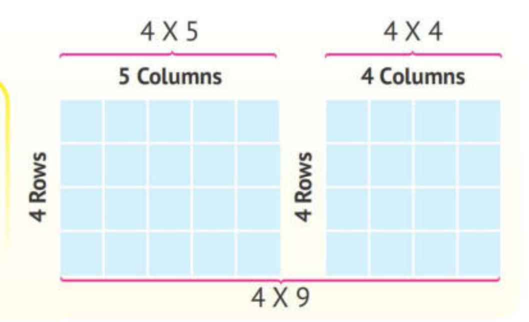
4 X 9 = (4 X 5) + (4 X 4)

Therefore:

4 X 9 = 4 X (5 + 4)

= (4 X 5) + (4 X 4)

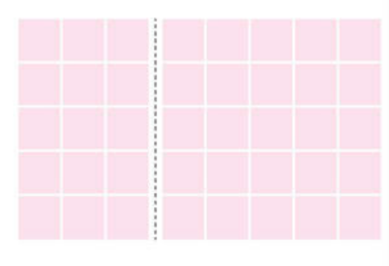
= 20 + 16 = 36



Activity 1

Complete using the Distributive Property:

ⓐ 5 X 8 = ... 40 .....



(..5.. X ..3..) + (..5.. X ..5..)

= ..15.. + ..25.. = ..40..

ⓑ 3 X 7 = ... 21 .....



(..3.. X ..4..) + (..3.. X ..3..)

= ..12.. + ..9.. = ..21..

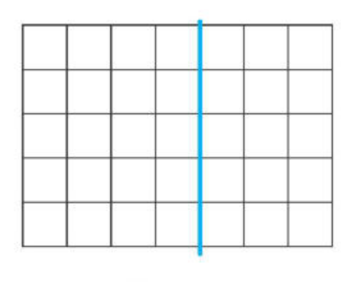




Activity 2

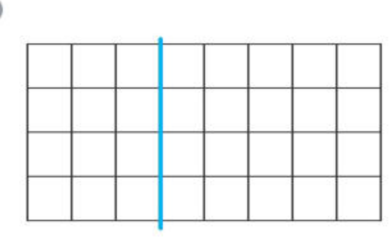
Divide the following arrays according to the **Distributive Property**:

a



5 X 7 = (5 X 4) + (5 X 3)

b



4 X 8 = (4 X 3) + (4 X 5)

Activity 3

Divide the following arrays, then use the **Distributive Property**:

يوجد إجابات متعددة:

a

(6 X 4) + (6 X 5)

= 24 + 30 = 54

b



(3 X 3) + (3 X 2)

= 9 + 6 = 15

Activity 4 Complete:

a) 7 X 9 = (7 X 3) + (7 X ....6....)

b) 5 X 8 = (....5.... X 3) + (....5.... X 5)

c) 8 X ....5.... = (8 X 3) + (8 X 2)

d) ....3.... X 6 = (3 X 3) + (3 X 3)

e) ....4.... X 8 = (....4.... X 5) + (4 X 3)

Activity 5 Complete as in the example:

Ex. 5 X 12 = 5 X (10 + 2) = (5 X 10) + (5 X 2)

= 50 + 10 = **60**

a) 7 X 13 = ..7.. X (..10.. + ..3..) = (..7.. X ..10..) + (..7.. X ..3..)

= ....70.... + ...21.... = ...91....

b) 6 X 15 = ..6.. X (..10.. + ..5..) = (..6.. X ..10..) + (..6.. X ..5..)

= ....60.... + ...30.... = ...90....

c) 3 X 18 = ..3.. X (..10.. + ..8..) = (..3.. X ..10..) + (..3.. X ..8..)

= ....30.... + ...24.... = ...54....

Activity 6 Complete as in the example:

Ex. (3 X 2) + (3 X 5) = 3 X 7 = **21**

a) (7 X 4) + (7 X 6) = ...7.... X ....10.... = ...70....

b) (..6.. X 3) + (..6.. X 2) = 6 X ....5.... = ...30....

c) (4 X 9) + (6 X 9) = ...10.... X ....9.... = ...90....



Chapter 5

Chapter Lessons



Lesson 1 Perimeter of Polygons

Outcomes:

- Measuring the polygon's side lengths in cm.
- Defining perimeter
- Calculating the perimeter of polygons in cm.
- Explaining why perimeter is a linear measurement.
- Distinguishing between polygons and non-polygons.



Lessons 2–4 Perimeter and Area – Area Using the Dimensions – Area Using Different Strategies

Outcomes:

- Explaining the difference between perimeter and area.
- Calculating the perimeter and area of given arrays with some units missing.
- Explaining why area is not a linear measurement.
- Calculating the area of a rectangle, given only the length and width.
- Describing the problem-solving strategies, used to solve area problems.
- Applying a variety of strategies to solve area problems.
- Explaining the strategies they used to solve area problems.

Lessons 5&6 Different Perimeters for the Same Area – Different Areas for the Same Perimeter

Outcomes:

- Constructing different rectangles with the same area.
- Comparing the perimeters of rectangles with the same area but different dimensions.
- Constructing different rectangles with the same perimeter.
- Comparing the areas of rectangles with the same perimeters but different dimensions.

Lesson 7 Applications on Perimeter and Area

Outcomes:

- Applying strategies to solve real-world area and perimeter problems.
- Applying their understanding of area and perimeter to write story problems.

Lesson 8 Multiplying by Multiples of 10

Outcomes:

- Multiplying by 10 and multiples of 10.
- Identifying and explaining patterns observed when multiplying by 10s.



Perimeter of Polygons محيط المضلعات

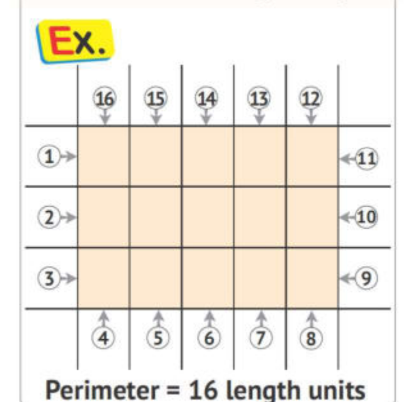
Learn

The perimeter of any shape is the length of the outer line that surrounds the shape.

محيط أي شكل هو طول الخط الخارجي الذي يحدد هذا الشكل.

If the figure is drawn on the square grid, we **count** the **outer line units** surrounding the figure.

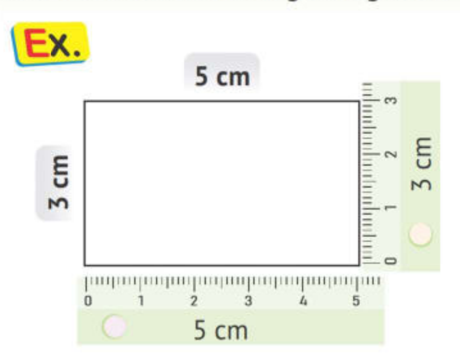
Ex.



Perimeter = 16 length units

If the figure is drawn on white paper, we **measure** the lengths of its sides using a **ruler** and **add these lengths together**.

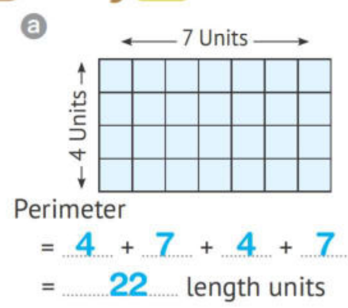
Ex.



Perimeter = 5 + 3 + 5 + 3 = 16 cm

Activity 1 Find the perimeter of each figure:

ⓐ

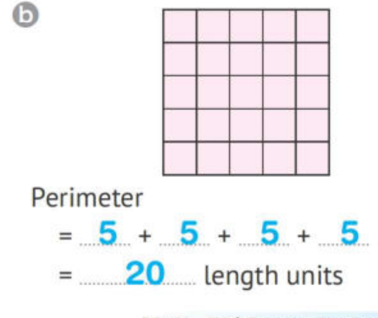


Perimeter

= 4 + 7 + 4 + 7

= 22 length units

ⓑ



Perimeter

= 5 + 5 + 5 + 5

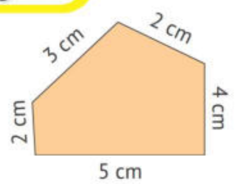
= 20 length units



Note

The Perimeter of any Polygon

The perimeter of any polygon equals the sum of its side lengths.

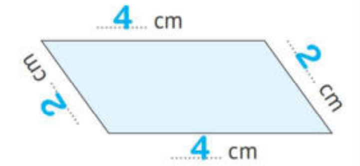


- Perimeter = 5 + 4 + 2 + 3 + 2 = 16 cm

Activity 2

Use a ruler to measure the length of each side of the following shapes, then find the perimeter:

a

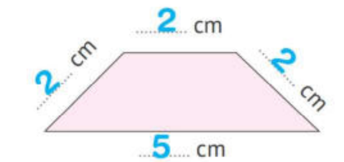


Perimeter

= 4 + 2 + 4 + 2

= 12 cm

b



Perimeter

= 5 + 2 + 2 + 2

= 11 cm

c

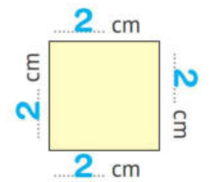


Perimeter

= 4 + 2 + 4 + 2

= 12 cm

d



Perimeter

= 2 + 2 + 2 + 2

= 8 cm

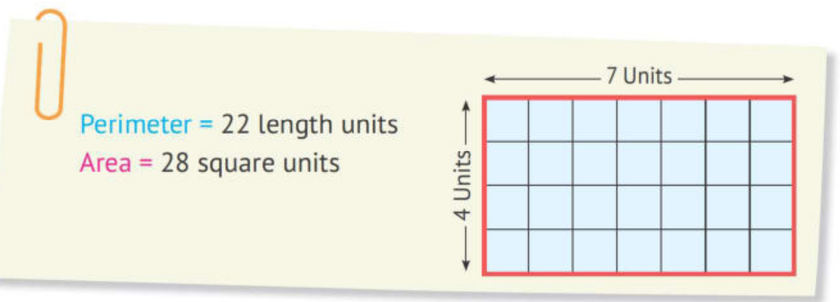


Perimeter and Area – Area Using the Dimensions – Area Using Different Strategies

المحيط والمساحة - المساحة باستخدام الأبعاد - المساحة بإستراتيجيات متنوعة

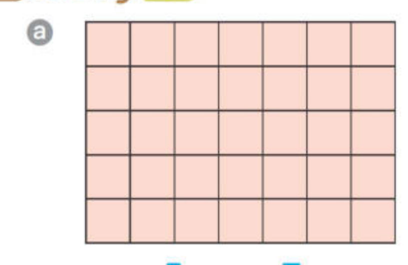


- **Perimeter** is the length of the lines that surround the figure from the outside.
- **Area** is how many units of space the shape contains from the inside.



Activity 1 Find the area and perimeter of each of the following:

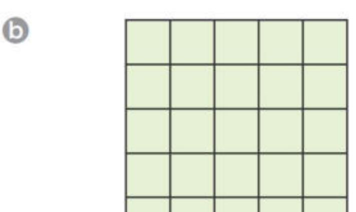
ⓐ



Area = 5 X 7
= 35 square units

Perimeter
= 5 + 7 + 5 + 7
= 24 length units

ⓑ



Area = 5 X 5
= 25 square units

Perimeter
= 5 + 5 + 5 + 5
= 20 length units



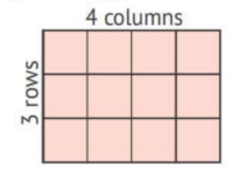
Activity 2

Look to the following grid, then complete the table:

Shape	Perimeter	Area
1	3 + 4 + 3 + 4 = 14 length units	3 X 4 = 12 square units
2	2 + 7 + 2 + 7 = 18 length units	2 X 7 = 14 square units
3	5 + 6 + 5 + 5 = 22 length units	5 X 6 = 30 square units
4	7 + 3 + 7 + 3 = 20 length units	7 X 3 = 21 square units
5	1 + 5 + 1 + 5 = 12 length units	1 X 5 = 5 square units
6	3 + 3 + 3 + 3 = 12 length units	3 X 3 = 9 square units

Strategies for finding the area of a rectangle and square

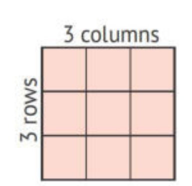
1 Array Strategy:



3 rows, 4 units each

Area = 4 + 4 + 4 = 12 square units

(3 X 4)

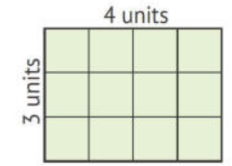


3 rows, 3 units each

Area = 3 + 3 + 3 = 9 square units

(3 X 3)

2 (Length X Width) Strategy:



Length = 4 units, Width = 3 units

Area = Length X Width

= 4 X 3 = 12 square units

3 units

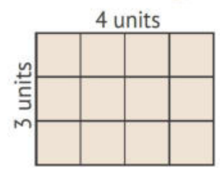
3 units

Length = 3 units, Width = 3 units

Area = Length X Width

= 3 X 3 = 9 square units

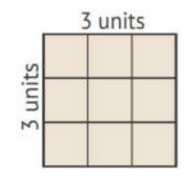
3 Distribution Strategy:



Area = 3 X 4 = (3 X 2) + (3 X 2)

= 6 + 6

= 12 square units



Area = 3 X 3 = (3 X 2) + (3 X 1)

= 6 + 3

= 9 square units

Activity 3

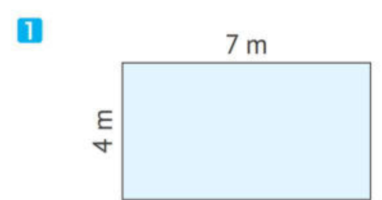
Find the area of each shape using two different strategies:

Shape	First Strategy	Second Strategy
(2 × 4 grid)	2 Rows of 4 4 + 4 = 8 Area = 8 square units	4 X 2 = 8 Area = 8 square units
(4 × 4 grid)	4 X 4 = 16 Area = 16 square units	4 + 4 + 4 + 4 = 16 Area = 16 square units
4 cm, 2 cm	4 X 2 = 8 Area = 8 square cm	2 + 2 + 2 + 2 = 8 Area = 8 square cm
2 cm, 2 cm	2 X 2 = 4 Area = 4 square cm	2 + 2 = 4 Area = 4 square cm



ⓐ Find the area of each of the following rectangles:

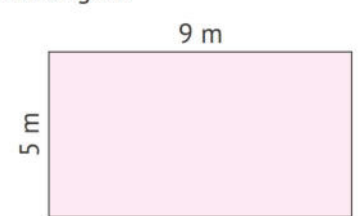
1



Area = ...7... X ...4...

= ...28... square meters

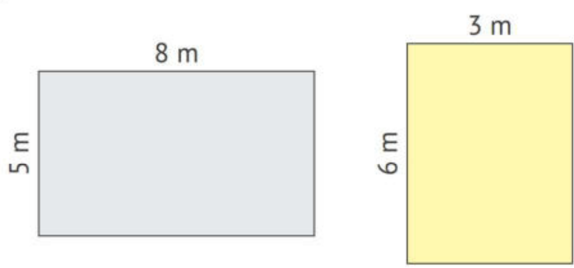
2



Area = ...9... X ...5...

= ...45... square meters

ⓑ Ahmed wants to build a 30 square meter goat farm. Find the area of the following two pieces of land, then decide which one is suitbale for building the farm.



1. Area of the first piece = ...8... X ...5... = ...40... square meters
2. Area of the second piece = ...6... X ...3... = ...18... square meters
3. The suitable piece for building farm is ...First... .

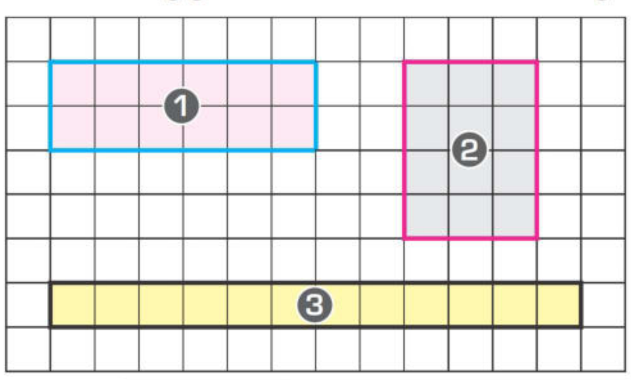




Different Perimeters for the Same Area – Different Areas for the Same Perimeter

محيطات مختلفة لنفس المساحة - مساحات مختلفة لنفس المحيط

The following grid shows a number of rectangles:



Rectangle	1	2	3
Area	12 sq. units	12 sq. units	12 sq. units
Perimeter	16 length units	14 length units	26 length units

Important Notes:

- Rectangles with the same area, do not necessarily have the same perimeter.
- The same area of two rectangles means that the two dimensions, have the same product.

Rectangle	1	2	3
Area	9 sq. units	8 sq. units	5 sq. units
Perimeter	12 length units	12 length units	12 length units

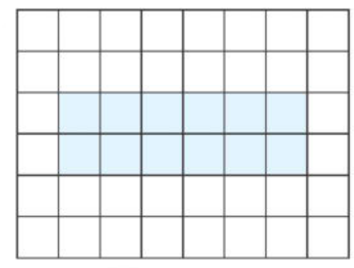
Important Notes:

- Rectangles with the same perimeter, do not necessarily have the same area.
- The same perimeter of two rectangles means that the two dimensions, have the same sum.



Draw a rectangle with the same area as the given rectangle, but with a different perimeter:

a



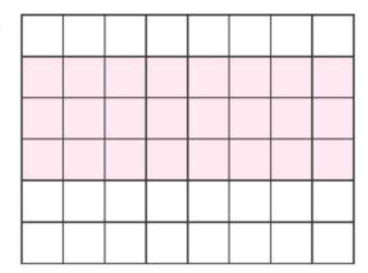
Area = 12 square units

Perimeter = 16 length units

Area = 12 square units

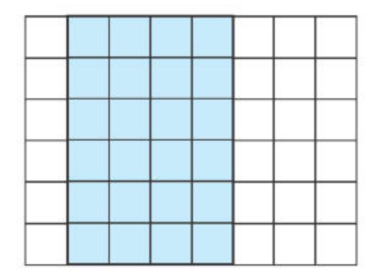
Perimeter = 14 length units

b



Area = 24 square units

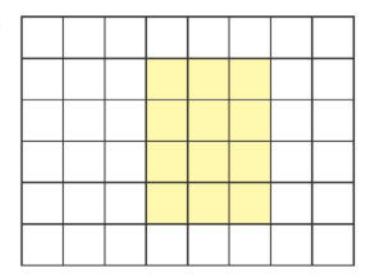
Perimeter = 22 length units



Area = 24 square units

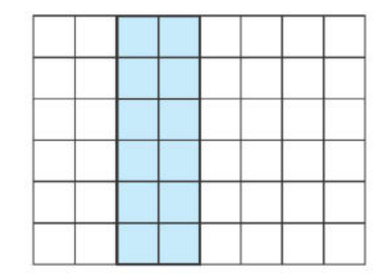
Perimeter = 20 length units

c



Area = 12 square units

Perimeter = 14 length units



Area = 12 square units

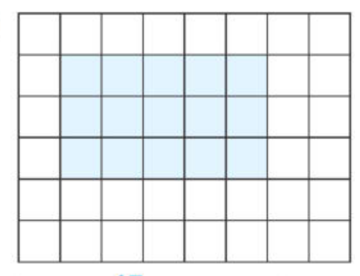
Perimeter = 16 length units



Activity 2

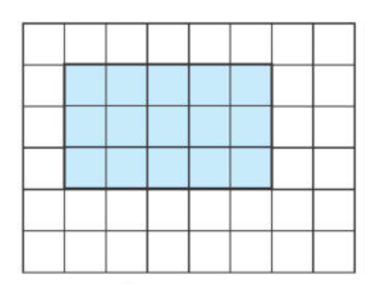
Draw a rectangle with the same perimeter as the given rectangle, but with different area:

ⓐ



Area = 15 square units

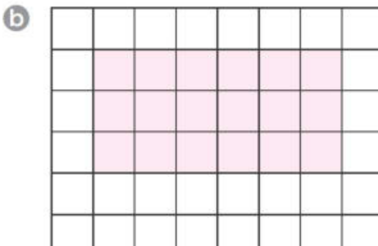
Perimeter = 16 length units



Area = 16 square units

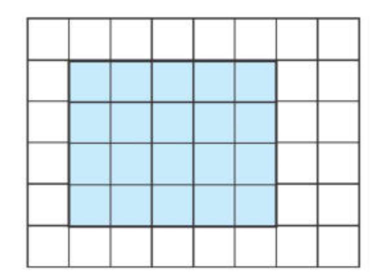
Perimeter = 16 length units

ⓑ



Area = 18 square units

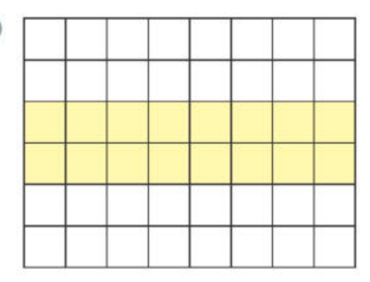
Perimeter = 18 length units



Area = 20 square units

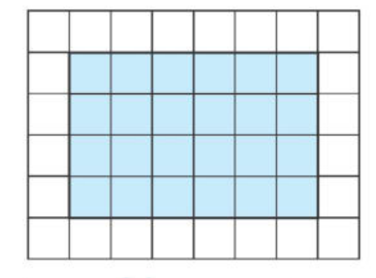
Perimeter = 18 length units

ⓒ



Area = 16 square units

Perimeter = 20 length units



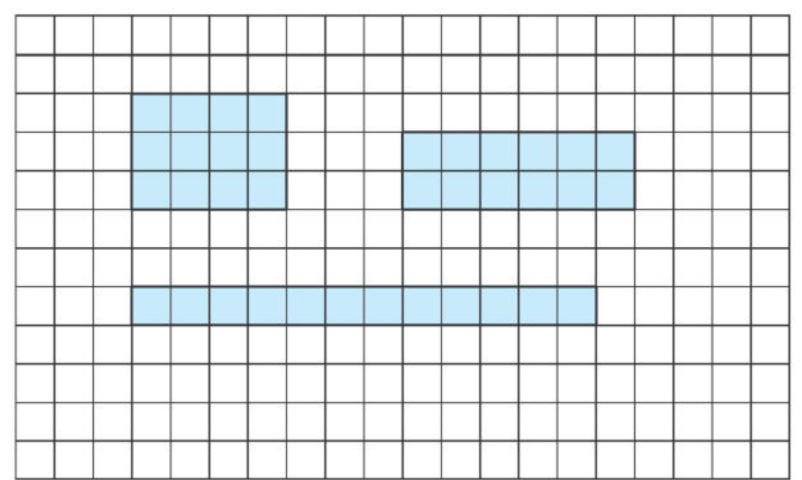
Area = 24 square units

Perimeter = 20 length units



Draw 3 different rectangles with an area of 12 square units:

12 = 12 X 1   12 = 3 X 4   12 = 6 X 2



Activity 4

Draw 3 different rectangles with a perimeter of 18 linear units:

Length + Width (half perimeter) = 18 ÷ 2 = 9 units

L + W = 7 + 2 = 9   L + W = 7 + 2 = 9   L + W = 5 + 4 = 9

7 units

2 units





Applications on Perimeter and Area

تطبيقات حياتية على المحيط والمساحة



A rectangular room measuring 6 meters long and 5 meters wide.
Find its perimeter and area.

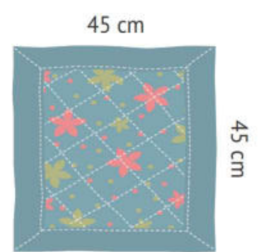
Perimeter = 6 + 5 + 6 + 5 = 22 meters

Area = 5 X 6 = 30 square meters



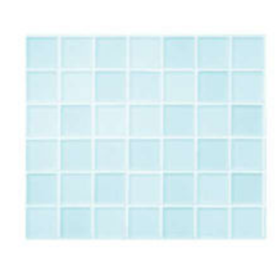


Shaimaa is sewing a border on a square baby blanket. The length of the blanket is 45 cm, and the width is 45 cm. How long will the border be?



The length of the border

= 45 + 45 + 45 + 45 = 180 cm





Farouk is building a patio out of tiles. He wants the length of the patio to be 7 tiles across and its width to be 6 tiles. How many tiles will he use in all to build the patio?

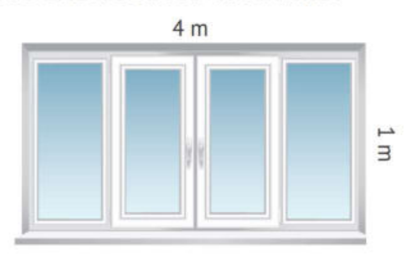
The area of the border

= 7 X 6 = 42 tiles



Omnia wants to put a wooden frame around her window. The window is 4 meters tall and 1 meter wide.

How much wood does she need for the frame?



The length of the wooden frame

= 4 + 1 + 4 + 1 = 10 m



A rug is 3 meters long and 2 meters wide. What is the area of the rug?



Area

= 3 X 2 = 6 square meters





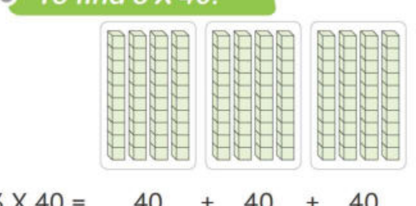
Multiplying by Multiples of 10

الضرب في مضاعفات العدد 10



5 X 20 = 20 + 20 + 20 + 20 + 20
= 100

To find 3 X 40:



3 X 40 = 40 + 40 + 40
= 120

Learn

6 X 7 0 = 4 2 0 | 9 X 6 0 = 5 4 0

When multiplying by multiples of 10, we take out the zeros and then continue the multiplication.

عند الضرب في مضاعفات الـ 10 نخرج الأصفار ثم نكمل الضرب.

Activity 1 Find the result:

a) 5 X 30 = 150
b) 4 X 60 = 240
c) 7 X 20 = 140
d) 7 X 40 = 280
e) 20 + 20 + 20 + 20 = 4 X 20 = 80
f) 30 + 30 + 30 = 3 X 30 = 90
g) 3 X 90 = 90 + 90 + 90 = 270
h) 3 X 70 = 70 + 70 + 70 = 210

Activity 2 Complete as in the example:

Ex.

- 4 X 10 = 40
- 44 X 10 = 440
- 125 X 10 = 1250
- 100 X 10 = 1000

ⓐ 7 X 10 = 70

ⓑ 9 X 10 = 90

ⓒ 12 X 10 = 120

ⓓ 52 X 10 = 520

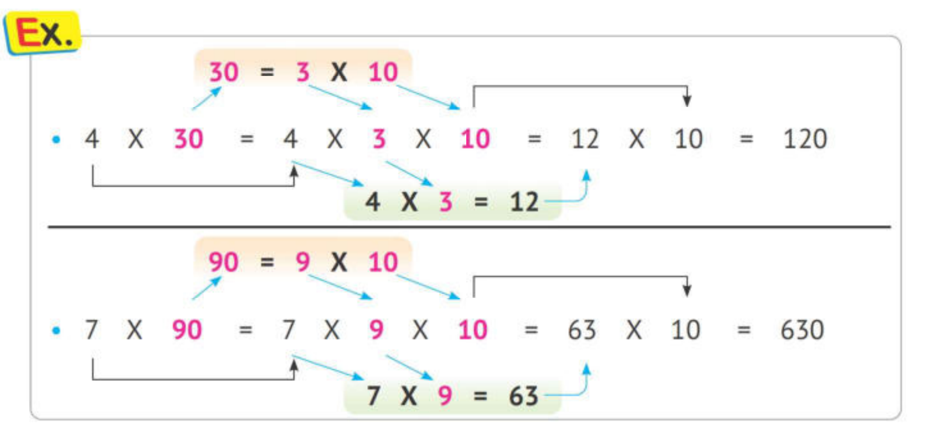
ⓔ 6 X 10 = 60

ⓕ 8 X 10 = 80

ⓖ 65 X 10 = 650

Activity 3 Complete as in the example:

Ex.



ⓐ 5 X 60 = 5 X 6 X 10 = 30 X 10 = 300

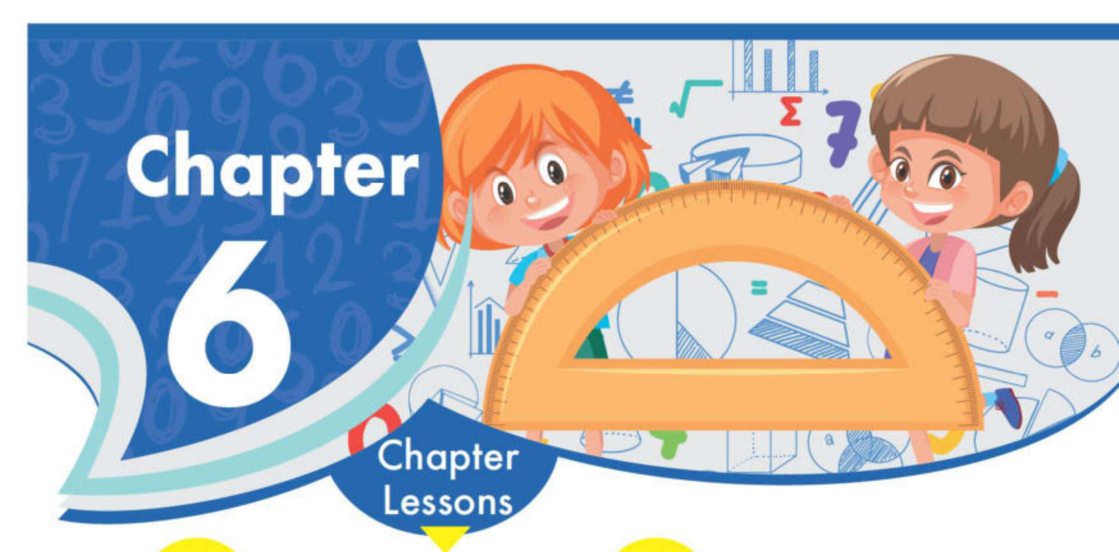
ⓑ 4 X 80 = 4 X 8 X 10 = 32 X 10 = 320

ⓒ 5 X 80 = 5 X 8 X 10 = 40 X 10 = 400

ⓓ 9 X 30 = 9 X 3 X 10 = 27 X 10 = 270

ⓔ 7 X 50 = 7 X 5 X 10 = 35 X 10 = 350

ⓕ 4 X 90 = 4 X 9 X 10 = 36 X 10 = 360



Chapter 6

Chapter Lessons



Lesson 1 Patterns of Multiplying by Multiples of 10

Outcomes:
- Explaining patterns observed when multiplying by multiples of 10.

Lesson 2 Strategies of Multiplying by 9

Outcomes:
- Investigating and applying patterns and strategies when multiplying by 9.
- Teaching others one strategy for multiplying by 9.

Lesson 3 Facts on Multiplication and Addition

Outcomes:
- Identifying patterns in multiplication and addition facts.
- Explaining how patterns observed in multiplication and addition facts can be helpful when solving problems.
- Applying strategies to solve addition and multiplication facts quickly and accurately.



Lesson 4 Comparing and Ordering Numbers in Different Forms

Outcomes:
- Identifying and describing patterns in the Place Value system up to the Hundred thousands place.
- Applying strategies for ordering numbers.

Lesson 5 Addition Strategies

Outcomes:
- Applying a variety of strategies to solve addition problems.
- Explaining the importance of learning different problem-solving strategies.

Lesson 6 Subtraction Strategies

Outcomes:
- Explaining the relationship between addition and subtraction.
- Applying strategies to subtract two numbers up to four digits.
- Using addition to check answers of subtraction problems.

Lesson 7 Applications on Addition and Subtraction

Outcomes:
- Applying strategies to solve addition and subtraction story problems.
- Reflecting on learning to identify areas of strength and opportunities for growth.



Lessons 8&9 Capacity – Reading Capacity

Outcomes:
- Defining volume as the measurement of the capacity of a container.
- Explaining the relationship between milliliters and liters.
- Estimating the size of a milliliter of water.
- Identifying the best unit to measure the volume of a given container.
- Reading volume measurements on a standard labelled container.
- Writing what they have learned about volume measurement.



Patterns of Multiplying by Multiples of 10

أنماط الضرب في مضاعفات العدد 10

Learn

When multiplying by multiples of 10, we take out the zeros and then continue the multiplication.

Multiples of 10 are: 10, 20, 30, 40, 50, 60, ...

Ex.

6 X 4 = 2 4

6 X 4 0 = 2 4 0

6 X 4 00 = 2 4 00

6 X 4 000 = 2 4 000

6 X 4 0 000 = 2 4 0 000

2 X 4 = 8

2 0 X 4 0 = 8 0 0

2 0 X 4 0 0 = 8 0 0 0

2 0 0 X 4 0 0 = 8 0 0 0 0

2 0 0 X 4 0 0 0 = 8 0 0 0 0 0





Find the product:

ⓐ 9 X 30 = 270
ⓑ 8 X 20 = 160
ⓒ 60 X 40 = 2,400
ⓓ 90 X 20 = 1,800
ⓔ 6 X 200 = 1,200
ⓕ 5 X 200 = 1,000
ⓖ 500 X 30 = 15,000
ⓗ 200 X 3,000 = 600,000



Complete the following:

ⓐ 50 X 2 = 100
ⓑ 30 X 500 = 15,000
ⓒ 80 X 200 = 16,000
ⓓ 10 X 2,000 = 20,000
ⓔ 30 X 70 = 2,100
ⓕ 500 X 20 = 10,000
ⓖ 50 X 40 = 2,000
ⓗ 1,000 X 50 = 50,000



Complete the following:



4 X 60 = (4 X 6) X 10 = 24 X 10 = 240

ⓐ 8 X 30 = (8 X 3) X 10 = 24 X 10 = 240
ⓑ 5 X 80 = (5 X 8) X 10 = 40 X 10 = 400
ⓒ 6 X 200 = (6 X 2) X 100 = 12 X 100 = 1,200
ⓓ 9 X 4,000 = (9 X 4) X 1,000 = 36 X 1,000 = 36,000



Strategies of Multiplying by 9

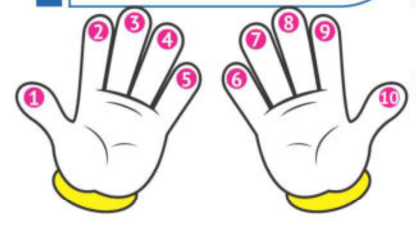
إستراتيجيات الضرب في العدد 9



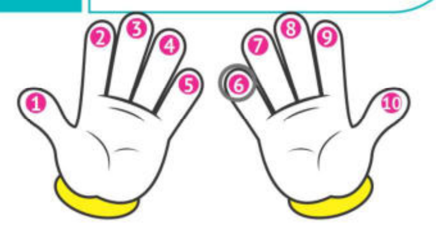
(1) Finger Trick Strategy

Ex. 9 X 6

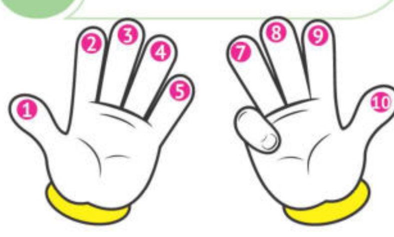
1. Number your fingers from the left hand to the right hand (1-10).



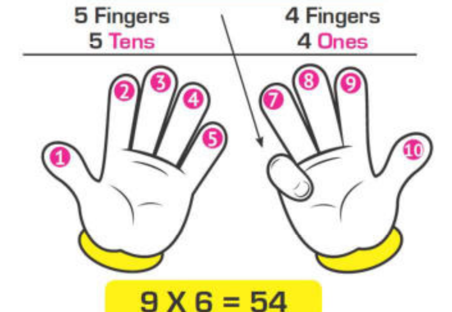
2. Starting on the left, count until you get to the 6th finger.



3. Put that finger down. This is the division between the Tens and the Ones now.



4. Count how many fingers are on the left in the Tens, and how many are on the right of the down finger and these are the Ones.



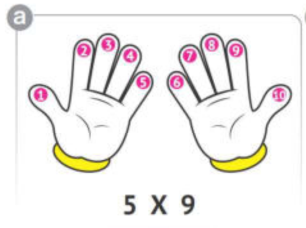
9 X 6 = 54





Use the **Finger Trick Strategy** to find:

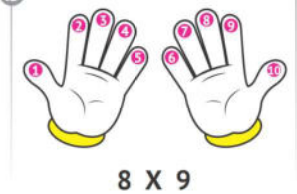
a



5 X 9

45

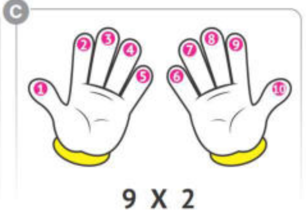
b



8 X 9

72

c



9 X 2

18

(2) List of Equations Strategy

1 X 9 =	09	0 + 9 = 9
2 X 9 =	18	1 + 8 = 9
3 X 9 =	27	2 + 7 = 9
4 X 9 =	36	3 + 6 = 9
5 X 9 =	45	4 + 5 = 9
6 X 9 =	54	5 + 4 = 9
7 X 9 =	63	6 + 3 = 9
8 X 9 =	72	7 + 2 = 9
9 X 9 =	81	8 + 1 = 9
10 X 9 =	90	9 + 0 = 9

(3) 120 Chart Strategy

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100
101	102	103	104	105	106	107	108	109	110
111	112	113	114	115	116	117	118	119	120

(4) Tens Facts Strategy

Ex. To find: 9 X 6

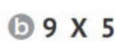
Draw a model of 10 X 6, then cross one group of 6:

6	6	6	6	6	6	6	6	6	~~6~~

9 X 6 = (10 X 6) - 6 = 54



Activity 2 Use the Tens Facts Strategy to find:



a) 9 X 7

7	7	7	7	7	7	7	7	7	~~7~~

9 X 7 = (10 X 7) – 7 = 70 – 7 = 63

b) 9 X 5

5	5	5	5	5	5	5	5	5	~~5~~

9 X 5 = (10 X 5) – 5 = 50 – 5 = 45

c) 9 X 8

8	8	8	8	8	8	8	8	8	~~8~~

9 X 8 = (10 X 8) – 8 = 80 – 8 = 72

d) 9 X 3

3	3	3	3	3	3	3	3	3	~~3~~




9 X 3 = (10 X 3) – 3 = 30 – 3 = 27




Activity 3 Complete using (<, =, or >):

a) 9 X 4 < 5 X 9

b) 2 X 9 = 3 X 6

c) 9 X 7 > 6 X 9

d) 8 X 6 > 9 X 5



Activity 4 Complete the following:

a) 9 X 3 = 27

b) 9 X 5 = 45

c) 9 X 9 = 81

d) 8 X 9 = 72

e) 9 X 6 = 54

f) 0 X 9 = 0



Facts on Multiplication and Addition

حقائق الضرب والجمع

Adding by Zero

The sum of any number and zero is **the same number**.

Ex. $0 + 3 = 3$

Multiplying by Zero

The product of any number and zero is **zero**.

Ex. $0 \times 3 = 0$

Adding to 1

The sum of any number and 1 is the number which comes **just after**.

Ex. $6 + 1 = 7$

Multiplying to 1

The product of any number and 1 is **the same number**.

Ex. $8 \times 1 = 8$

Commutative Property of Addition

Addends can be **added** in **any order**.

Ex. $7 + 3 = 10$

$3 + 7 = 10$

Commutative Property of Multiplication

Factors can be **multiplied in any order**.

Ex. $5 \times 4 = 20$

$4 \times 5 = 20$

Doubling Numbers = Multiplying by 2

Ex. $6 + 6 = 12$, $6 \times 2 = 12$

So, $6 + 6 = 6 \times 2$

Distribution Property of Multiplication

Ex. $5 \times 9 = 5 \times (3 + 6)$

$= (5 \times 3) + (5 \times 6)$

$= 15 + 30 = 45$



Activity 1 Find the result of the following:

ⓐ 4 + 0 = 4 ⓑ 0 + 6 = 6 ⓒ 8 X 0 = 0

ⓓ 0 X 7 = 0 ⓔ 7 + 1 = 8 ⓕ 1 + 3 = 4

ⓖ 6 X 1 = 6 ⓗ 1 X 4 = 4 ⓘ 6 X 9 = 54

ⓙ 9 X 6 = 54 ⓚ 7 + 3 = 10 ⓛ 4 + 5 = 9

ⓜ 8 + 8 = 16 ⓝ 9 X 2 = 18 ⓞ 2 X 7 = 14

Activity 2 Compete the following:

ⓐ 0 + 7 = 7 ⓑ 1 X 7 = 7 ⓒ 1 + 6 = 7

ⓓ 1 + 7 = 8 ⓔ 0 X 6 = 0 ⓕ 4 + 3 = 3 + 4

ⓖ 9 + 5 = 5 + 9 ⓗ 8 X 4 = 4 X 8 ⓘ 5 X 6 = 6 X 5

ⓙ 7 + 7 = 7 X 2 . ⓚ 2 X 8 = 8 + 8 ⓛ 9 + 9 = 2 X 9

ⓜ 7 X 5 = (7 X 2) + (7 X 3) = 14 + 21 = 35

ⓝ 9 X 12 = (9 X 10) + (9 X 2) = 90 + 18 = 108

ⓞ 7 X 10 = (7 X 3) + (7 X 7) = 21 + 49 = 70

Activity 3 Complete using (X or +):

ⓐ 5 X 0 = 0 ⓑ 8 + 0 = 8 ⓒ 6 X 1 = 6

ⓓ 6 + 1 = 7 ⓔ 6 + 7 = 7 + 6 ⓕ 6 X 7 = 7 X 6

ⓖ 7 X 8 = (7 X 5) + (7 X 3)



Comparing and Ordering Numbers in Different Forms

مقارنة وترتيب الأعداد بصيغ متنوعة

Remember

Thousands			Hundreds	Tens	Ones
Hundreds	Tens	Ones			
3	6	4	8	7	2

Standard Form	364,872
Word Form	Three hundred sixty-four thousand, eight hundred and seventy-two.
Short-word Form	364 thousands and 872
Expanded Form	300,000 + 60,000 + 4,000 + 800 + 70 + 2
Units Form	364 Thousands + 8 Hundreds + 7 Tens + 2 Ones

Place Value	Hundreds Thousands	Ten Thousands	Thousands	Hundreds	Tens	Ones
	5	5	5	5	5	5
Value	500,000	50,000	5,000	500	50	5

Ex. The digit 5 in 35,792 is in the Thousands place and its value is 5,000.



Ex.

- The number 56,258 comes just after 56,257.
- The number that comes just after 56,258 is 56,259.

Ex.

- The number 336,999 comes just before 337,000.
- The number that comes just before 336,999 is 336,998.

Activity 1 Complete the following:

ⓐ Twenty-five thousand, six hundred and eleven = ...25,611.... (in standard form)

ⓑ 700,618 (in word form): Seven hundred thousand, six hundred eighteen

ⓒ 700,000 + 70,000 + 5,000 + 800 + 50 + 3 = ...775,853....

ⓓ 98 Thousands + 6 Ones + 5 Tens + 7 Hundreds = ...98,756....

ⓔ 70 + 0 + 0 + 4 = ...74....

ⓕ 7,856 = ...7,000.... + ...800.... + ...50.... + ...6....

ⓖ 552,159 = ..5.. Tens + 552 Thousands + ..9.. Ones + ..1.. Hundred

ⓗ The number that comes **just after** 36,299 is ....36,300.... .

ⓘ 700,250 comes **just after** ....700,249.... .

ⓙ The number ....900,000.... comes **right after** 899,999.

ⓚ The number that comes **just before** 75,000 is ....74,999.... .

ⓛ 3,156 comes **just before** ....3,157.... .

ⓜ The number ....15,199.... comes **just before** 15,200.

n The **place value** of 5 in 224,**5**69 is Hundreds.

o The **place value** of 7 in **7**89,895 is Hundred Thousands

p The **value** of the digit 7 in **7**9,159 is 70,000 .

q The **value** of the digit 2 in 8,1**2**8 is 20 .

r The **largest** 5-digit number is 99,999 .

s The **smallest** 6-digit number is 100,000 .

t The **largest** and the **smallest** numbers formed from the digits (7, 2, 0, 6 and 3) are 76,320 and 20,367 .

Activity 2 Complete the following table:

	Number	The Place Value of the Encircled Digit	The Value of the Encircled Digit
a	(4)55,369	Hundred-thousands	400,000
b	3(6)2,512	Ten-thousands	60,000
c	28(0),239	Thousands	0
d	696,2(7)4	Tens	70
e	51,78(0)	Ones	0
f	39,(9)24	Hundreds	900





Complete using the following set of numbers:

ⓐ (3 ,5,0,4,7)

The **largest** number: 75,430

The **smallest** number: 30,457

ⓑ (8 ,5,4)

The **largest** 6-digit number: 888,854

The **smallest** 6-digit number: 444,458

Activity 4 Complete using (< , = or >):

ⓐ 255,458 < 667,102

ⓑ 155,258 < 155,528

ⓒ 50,502 > 50,205

ⓓ 45,000 + 45 < 45,450

ⓔ 20 Hundreds = 2,000

ⓕ 3 + 500 + 2,000 < 3,520

ⓖ 45 Thousands + 5 Hundreds + 31 Tens = 45,810

ⓗ The smallest 5-different-digit number < 12,345

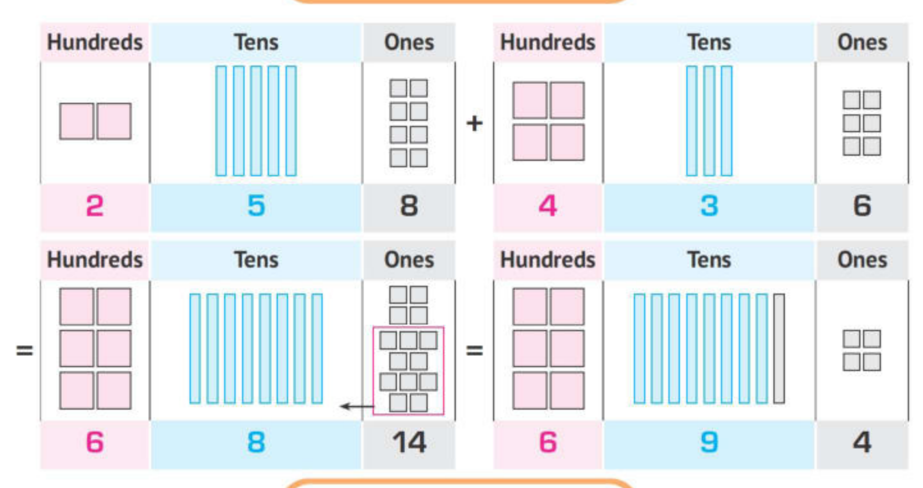
ⓘ Ninety thousand and nine < 900,009



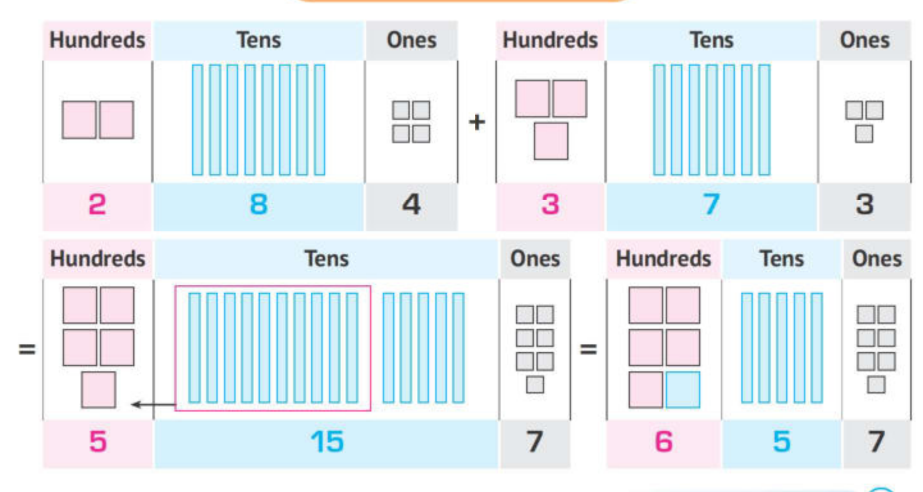
Addition Strategies إستراتيجيات الجمع

First Strategy: Place Value Strategy

To add: 258 + 436



To add: 284 + 373







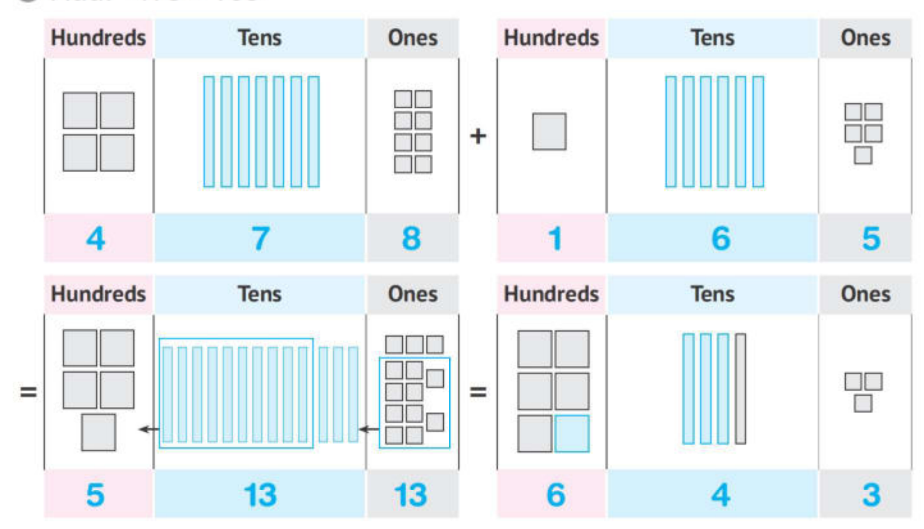
ⓐ Add: 275 + 219:

Hundreds	Tens	Ones		Hundreds	Tens	Ones
2	7	5	+	2	1	9

	Hundreds	Tens	Ones		Hundreds	Tens	Ones
=	4	8	14	=	4	9	4

So, 275 + 219 = 494

ⓑ Add: 478 + 165

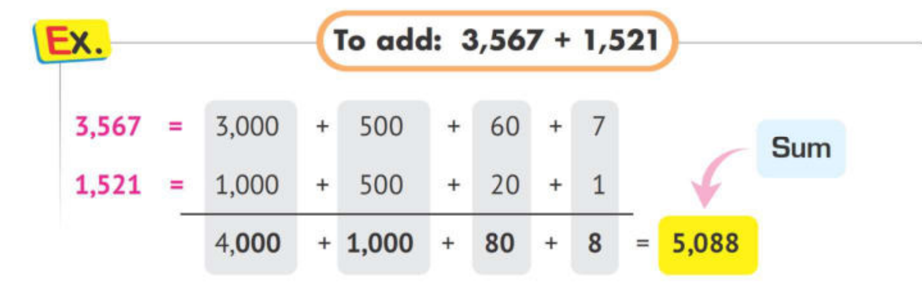


Hundreds	Tens	Ones		Hundreds	Tens	Ones
4	7	8	+	1	6	5

	Hundreds	Tens	Ones		Hundreds	Tens	Ones
=	5	13	13	=	6	4	3

So, 478 + 165 = 643

Second Strategy: The Expanded Form Strategy



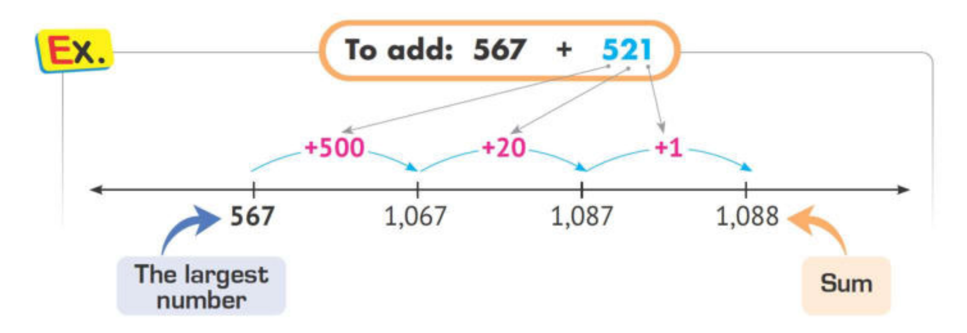
Activity 2

Add using the Expanded Form Strategy:

	Problem	Work Space	Sum
a	567 + 321	500 + 60 + 7 300 + 20 + 1 800 + 80 + 8	888
b	783 + 138	700 + 80 + 3 100 + 30 + 8 800 + 110 + 11	921
c	6,237 + 1,582	6,000 + 200 + 30 + 7 1,000 + 500 + 80 + 2 7,000 + 700 + 110 + 9	7,819
d	2,514 + 279	2,000 + 500 + 10 + 4 + 200 + 70 + 9 2,000 + 700 + 80 + 13	2,793



Third Strategy: The Number Line Strategy





Activity 3 Solve the addition problems below using **The Number Line Strategy**:

	Problem	Work Space	Sum
a	258 + 321	+300, +20, +1: 567 → 867 → 887 → 888	888
b	6,237 + 1,582	+1,000, +500, +80, +2: 6,237 → 7,237 → 7,737 → 7,817 → 7,819	7,819
c	2,514 + 279	+200, +70, +9: 2,514 → 2,714 → 2,784 → 2,793	2,793
d	2,481 + 503	+500, +3: 2,481 → 2,981 → 2,984	2,984

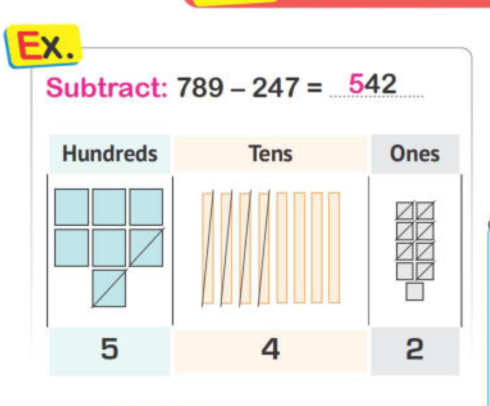


Subtraction Strategies إستراتيجيات الطرح

First: Place Value Picture Strategy

Ex.

Subtract: 789 – 247 = 542



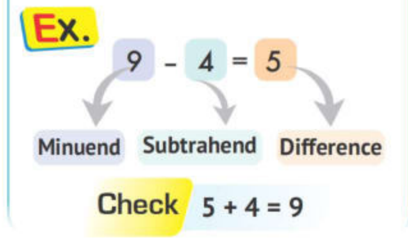
Hundreds	Tens	Ones
5	4	2

Check 542 + 247 = 789



- To check your answer, we add the difference to the subtrahend to get the minuend.

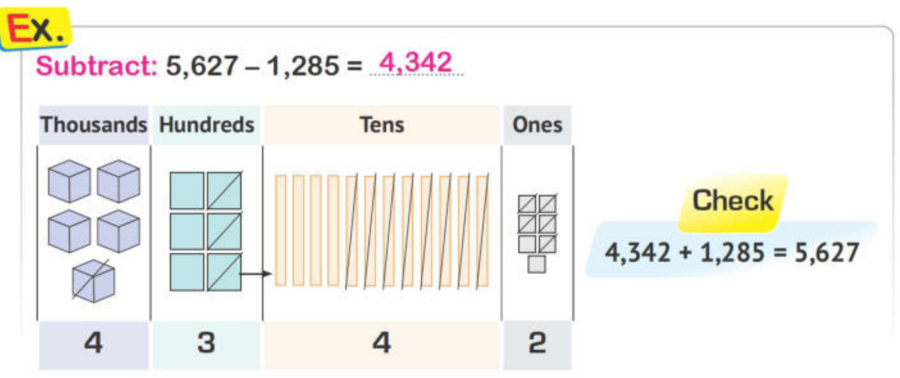
Ex.



Check 5 + 4 = 9

Ex.

Subtract: 5,627 – 1,285 = 4,342



Thousands	Hundreds	Tens	Ones
4	3	4	2

Check

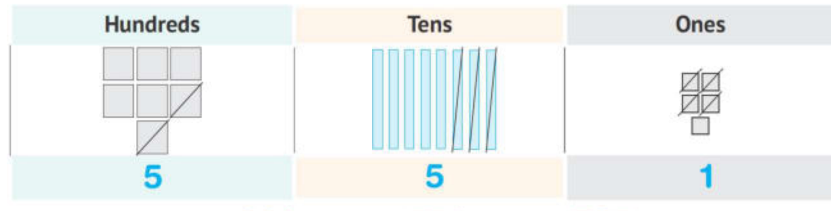
4,342 + 1,285 = 5,627





Solve the following subtraction problems using the Place Value Picture Strategy:

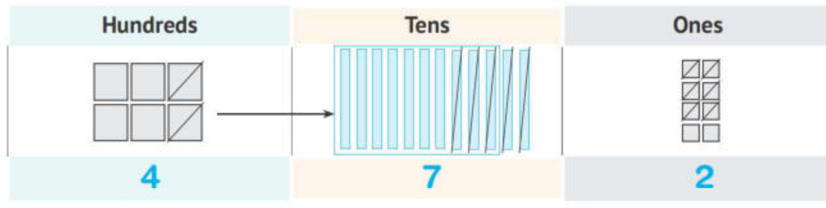
ⓐ 785 – 234 = 551



Hundreds	Tens	Ones
5	5	1

Check: 234 + 551 = 785

ⓑ 628 – 156 = 472



Hundreds	Tens	Ones
4	7	2

Check: 156 + 472 = 628

ⓒ 3,524 – 1,403 = 2,121

Thousands	Hundreds	Tens	Ones
2	1	2	1

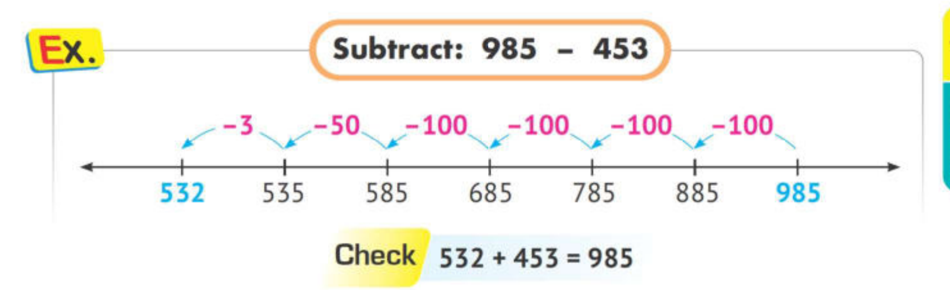
Check: 1,403 + 2,121 = 3,524

ⓓ 6,625 – 2,162 = 4,463

Thousands	Hundreds	Tens	Ones
4	4	6	4

Check: 2,162 + 4,463 = 6,625

Second: Subtraction using the Number Line Strategy





Solve the addition problems below using **The Number Line Strategy**:

	Subtraction Problem	Check
a	853 – 532 = 321 –2, –30, –500 321, 323, 353, 853	532 + 321 853
b	7,625 – 1,213 = 6,412 –3, –10, –200, –1,000 6,412, 6,415, 6,425, 6,625, 7,625	1,213 + 6,412 7,625
c	5,328 – 416 = 4,912 –6, –10, –400 4,912, 4,918, 4,928, 5,328	416 + 4,912 5,328





Applications on Addition and Subtraction

تطبيقات حياتية على الجمع والطرح



Help your child know that:

The following steps can be followed in the solution:

1. **Understand** what do we want to find. — Circle the questions
2. **Plan** what facts do you need. — Underline them
3. **Solve** using one of the methods we learned.
4. **Check** whether your answer makes sense or not.

Some Keywords can be used to discover the appropriate way to solve the problem, but you should not rely entirely on these words, the problem should be read and understood well.



of Addition

- Add
- Total
- In all
- Sum
- Altogether
- And

of Subtraction

- Left
- Subtract
- How many more/less
- Remain
- Remainder
- Difference
- Take away



The following table shows the borrowed books from a library during the month of September:

Grade	P1	P2	P3	P4	P5
Books Borrowed	435	317	278	107	239

Answer the following questions:

ⓐ How many books did students borrow from P1 and P2 grades together?

$435 + 317 = 752$

ⓑ How many books did students borrow from P3, P4, and P5 grades together?

278 + 107 + 239 = 624

ⓒ How many more books have students borrowed from P5 grade than P4 grade?

239 – 107 = 132

ⓓ Which class borrowed the largest number of books?

P1



Amir's family is saving to buy a new TV. The TV costs 4,590 LE on sale. They have saved 2,410 LE so far. How much more money do they need to buy the TV?

4,590 – 2,410 = 2,180 LE



ⓐ **Omar just moved to the city. He found an apartment to rent for 3,340 LE per month. Electricity and gas will cost him 692 LE per month.**

How much money will it cost him each month to live in the apartment?

3,340 + 692 = 4,032 LE

ⓑ **If Omar had 5,000 LE to spend each month. How much money does he lave left after he pays for rent, electricity, and gas?**

5,000 – 4,032 = 968 LE



Mr. Mahmoud raises chickens. In the past two years, his chickens have laid 5,350 eggs. Last year, his chickens laid 2,120 eggs. How many eggs did his chickens lay two years ago?

5,350 – 2,120 = 3,230 eggs





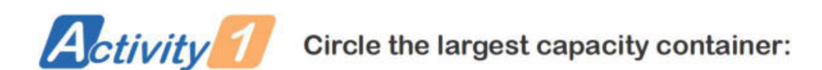
Lessons 7&8 Capacity – Reading Capacity السعة – قراءة السعة

Capacity The amount of liquid that the container can contain.

Units of Capacity



1 Liter = 1,000 Milliliter



Activity 1 Circle the largest capacity container:







Circle the smallest capacity container:

a



b





What is better for measuring the volume of liquid in capacity, in milliliters or liters?

a) Petrol in a car — Milliliter / Liter

b) Soda in a can — Milliliter / Liter

c) Spoonful of medicine — Milliliter / Liter

d) Dishwashing soap — Milliliter / Liter

e) Water in a bottle — Milliliter / Liter

f) Shampoo in a bottle — Milliliter / Liter

g) Juice in a juice box — Milliliter / Liter

h) Water in a bathtub — Milliliter / Liter

i) Perfume in a bottle — Milliliter / Liter

Activity 4 Complete the following:

ⓐ 1 liter = ...1,000...... milliliters

ⓑ 5,000 ml = ...5...... liters

ⓒ 2 liters = ...2,000...... milliliters

ⓓ 7,000 ml = ...7...... liters

ⓔ To measure the capacity of a cup of tea, we use ......milliliters...... .

ⓕ The liter is used to measure ......capacity...... .

The Graduated Cylinder

– It is a tool for measuring the capacity of liquids.

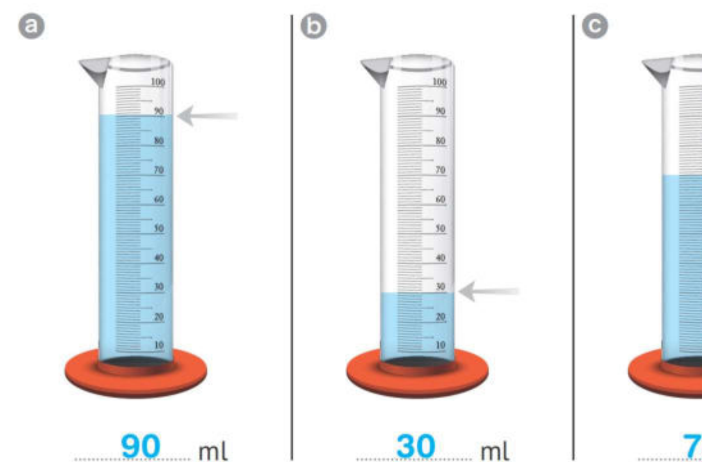
– It is graduated like a ruler.

In the opposite figure:

– The capacity of the liquid in the graduated cylinder is 50 ml.



Write the capacity for each of the following:



ⓐ ......90...... ml

ⓑ ......30...... ml

ⓒ ......70...... ml

Guide Answers

Chapter 1

Lesson 1

Patterns

Activity 1

ⓐ +3 ⓑ −10

ⓒ ▲■ ⓓ ▲●

Activity 2

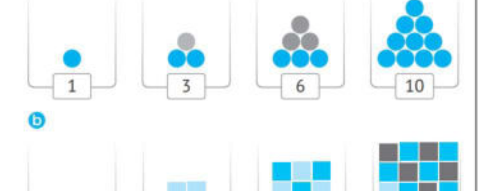
ⓐ 30 , 32 , 34 [+2] ⓑ 30 , 36 , 42 [+6]

ⓒ 70 , 65 , 60 [−5] ⓓ 24 , 20 , 16 [−4]

ⓔ ■▲ [■▲] ⓕ ●▲■ [●▲■]

Activity 3



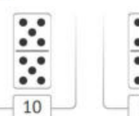


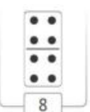
1 3 6 10

ⓑ

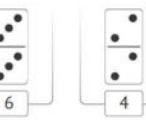
1 4 9 16









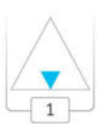


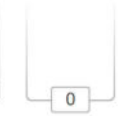
10 8 6 4

ⓓ









6 3 1 0

Lesson 2

More of Bar Graphs

Activity 1

ⓐ

Favorite Fruit	Apples	Oranges	Bananas	Pears
Number of Students	30	60	50	40

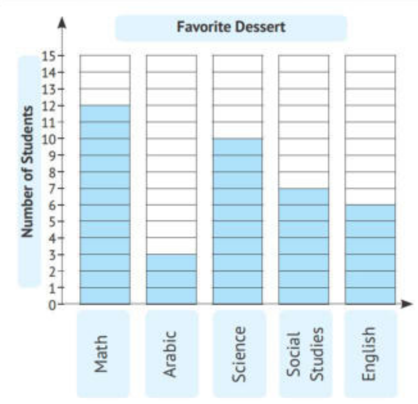
ⓑ 60 ⓒ 30 + 50 = 80

ⓓ 30 + 60 + 50 + 40 = 180 ⓔ Apples

Activity 2

ⓐ

Favorite Subject	Math	Arabic	Science	Social Studies	English
Tallies	卌 卌 ||	|||	卌 卌	卌 ||	卌 |
Number of Students	12	3	10	7	6

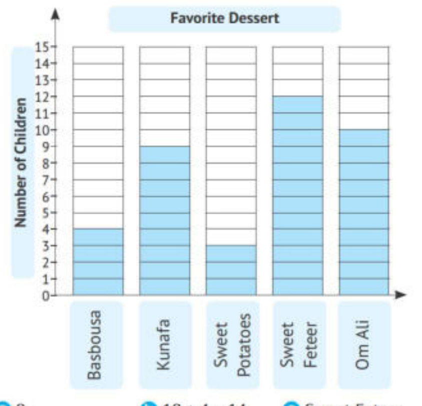


ⓑ 12 − 3 = 9 ⓒ 7 + 3 = 10

ⓓ Arabic, English, Social Studies, Science, Math

Activity 3

Favorite Desserts	Basbousa	Kunafa	Sweet Potatoes	Sweet Feteer	Om Ali
Tallies	||||	卌 ||||	|||	卌 卌 ||	卌 卌
Number of Children	4	9	3	12	10



ⓐ 9 ⓑ 10 + 4 = 14 ⓒ Sweet Feteer
ⓓ Sweet Potatoes ⓔ 12 – 3 = 9

Lesson 3

Line Plot

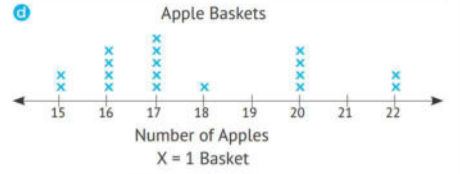
Activity 1

ⓐ 15 ⓑ 22

ⓒ

Number of Apples	15	16	17	18	19	20	21	22
Frequency	2	4	5	1	0	4	0	2

ⓓ Apple Baskets



Number of Apples
X = 1 Basket

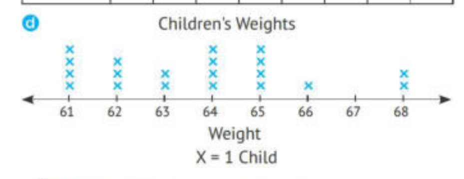
Activity 2

ⓐ 61 ⓑ 68

ⓒ

The weight	61	62	63	64	65	66	67	68
Tallies	||||	|||	||	||||	||||	|		||
Frequency	4	3	2	4	4	1	0	2

ⓓ Children's Weights



Weight
X = 1 Child

Activity 3

ⓐ 7 ⓑ 3 ⓒ 6 ⓓ 4 ⓔ Bus ⓕ 7 – 6 = 1.

Lessons 4–6

Measuring Lengths in (Centimeter, Meter, and Millimeter)

Activity 1

ⓐ Meter ⓑ Millimeter ⓒ Centimeter
ⓓ Centimeter ⓔ Meter ⓕ Meter
ⓖ Millimeter ⓗ Millimeter ⓘ Centimeter

Activity 2

ⓐ 8 centimeters ⓑ 3 centimeters ⓒ 5 centimeters
ⓓ 11 centimeters ⓔ 14 centimeters

Activity 3

ⓐ 2 cm ⓑ 3 cm ⓒ 3 cm ⓓ 5 cm ⓔ 5 cm ⓕ 6 cm

Activity 4

ⓐ 10 cm ⓑ 5 m ⓒ 2 m ⓓ 16 cm ⓔ 4 cm ⓕ 1 mm

Activity 5

ⓐ 300 cm ⓑ 8 m ⓒ 100 cm ⓓ 7 m ⓔ 800 cm
ⓕ 2 m ⓖ 10 mm ⓗ 5 cm ⓘ 700 mm
ⓙ 18 cm ⓚ 30 mm ⓛ 60 cm ⓜ 140 mm
ⓝ 12 cm

Activity 6

ⓐ 372 cm ⓑ 37 mm ⓒ 520 cm
ⓓ 105 mm ⓔ 703 cm ⓕ 324 mm
ⓖ 3 m, 82 cm ⓗ 9 cm, 6 mm ⓘ 9 m, 50 cm
ⓙ 20 cm, 8 mm ⓚ 4 m, 7 cm ⓛ 72 cm, 5 m

Chapter 2

Lessons 1–4

Thousands, Ten Thousands, and Hundred Thousands – Numbers in Different Forms

First:

Activity 1

ⓐ Standard Form: 3,844
Word Form: Three thousand, eight hundred forty– four

ⓑ Standard Form: 5,028
Word Form: Five thousand, twenty-eight

ⓒ Standard Form: 6,520
Word Form: Six thousand, five hundred twenty

ⓓ Standard Form: 4,708
Word Form: Four thousand, Seven hundred eight

ⓔ Standard Form: 24,035
Word Form: Twenty-four thousand, thirty-five

ⓕ Standard Form: 79,380
Word Form: Seventy-nine thousand, three hundred eighty

ⓖ Standard Form: 362,440
Word Form: Three hundred sixty-two thousand, four hundred forty

ⓗ Standard Form: 200,040
Word Form: Two hundred thousand, forty

Activity 2

ⓐ

Thousands			Hundreds	Tens	Ones
Hundreds	Tens	Ones			
		8	5	6	0

Word Form: Eight thousand, five hundred sixty

ⓑ

Thousands			Hundreds	Tens	Ones
Hundreds	Tens	Ones			
	6	0	4	1	5

Word Form: Sixty thousand, four hundred fifteen

ⓒ

Thousands			Hundreds	Tens	Ones
Hundreds	Tens	Ones			
8	0	2	3	1	5

Word Form: Eight hundred two thousand, three hundred fifteen

ⓓ

Thousands			Hundreds	Tens	Ones
Hundreds	Tens	Ones			
		3	5	7	4

Standard Form: 3,574

ⓔ

Thousands			Hundreds	Tens	Ones
Hundreds	Tens	Ones			
	9	7	4	5	8

Standard Form: 97,458

ⓕ

Thousands			Hundreds	Tens	Ones
Hundreds	Tens	Ones			
8	2	4	2	3	1

Standard Form: 824,231

Activity 3

ⓐ 5,316 ⓑ 84,224 ⓒ 963,807
ⓓ 19,027 ⓔ 300,016

Activity 4

ⓐ Five thousand, two hundred thirty
ⓑ Forty-five thousand, thirty
ⓒ Fifty thousand, one hundred eight
ⓓ Three hundred forty thousand, eight
ⓔ Five hundred three thousand, one hundred sixty

Second:

Activity 1

The Number	The Value	The Place Value
(2)356	2000	Thousands
5(2)09	200	Hundreds
301(2)	2	Ones
78(9)6	90	Tens
3(0)50	0	Hundreds

Activity 2

ⓐ 20 Hundreds = 2,000 ⓑ 80,000 = 800 Hundreds
ⓒ 10,000 Tens = 100,000 ⓓ 5,000 = 5 Thousands
ⓔ 70 Thousands = 700 Hundreds
ⓕ 600 Thousands = 60,000 Tens
ⓖ 500 Hundreds = 5,000 Tens
ⓗ 3,000 Tens = 30 Thousands
ⓘ 6,000 Ones = 60 Hundreds
ⓙ 200 Hundreds = 20 Thousands

Activity 3

ⓐ 300,000 + 60,000 + 400 + 50 + 9
ⓑ 90,000 + 1,000 + 700 + 20 + 4
ⓒ 600,000 + 500 + 30 + 1
ⓓ 200,000 + 4,000 + 500 + 8 ⓔ 200,000 + 50,000 + 8

Activity 4

ⓐ 3 , 8 , 9 , 2 ⓑ 52 , 0 , 2 , 3 ⓒ 602 , 0 , 2 , 5
ⓓ 1 , 7 , 65 , 5 ⓔ 2 , 0 , 200 , 3

Activity 5

ⓐ 45,237 = 45 Thousands + 2 Hundreds + 3 Tens + 7 Ones
45,237 = 40,000 + 5,000 + 200 + 30 + 7

ⓑ 15,028 = 15 Thousands + 0 Hundreds + 2 Tens + 8 Ones
15,028 = 10,000 + 5,000 + 20 + 8

ⓒ 300,080 = 300 Thousands + 0 Hundreds + 8 Tens + 0 Ones
300,080 = 300,000 + 80

Activity 6

a 5,000 + 200 + 30 + 4 = 5,234
b 6 + 300 + 5,000 + 80 = 5,386
c 900 + 30,000 + 7,000 + 50 + 2 = 37,952
d 80 + 9,000 + 300,000 + 50,000 + 4 + 200 = 359,284
e 90,000 + 500 = 90,500
f 800,000 + 50 + 3 = 800,053
g 245 Thousands + 7 Hundreds + 6 Tens + 3 Ones = 245,763
h 2 Hundreds + 25 Thousands + 3 Ones = 25,203

Third:

Activity 1

a < b < c > d < e <
f = g < h > i <

Activity 2

a 49,298 , 53,068 , 57,680 , 68,078 , 94,760
b 700,145 , 700,415 , 700,451 , 700,514 , 700,541
c 200 , 2,222 , 20,002 , 20,020 , 20,200

Activity 3

a 80,102 , 70,000 , 50,680 , 50,103 , 30,999
b 600,915 , 600,591 , 600,519 , 600,195 , 600,159
c 70,070 , 70,007 , 70,000 , 7,770 , 7,000

Activity 4

a 3,489 b 97,542 c 30,468 d 6,310
e 9,999 f 100,000 g 5,558 h 777,73
i 333,357 j 888,842

Activity 5

a 35,784 b 315,100 c 68,030 d 821,000

Activity 6

a 370,688 b 12,999 c 582,539 d 49,999

Lesson 5

Arrays

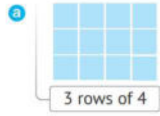
Activity 1

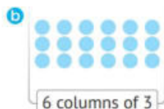
a Then number of rows is 3
- The number of balls in each row is 6
- Total number of balls: 6 + 6 + 6 = 18 balls
- The number of columns is 6
- The number of balls in each column is 3
- Total number of balls: 3 + 3 + 3 + 3 + 3 + 3
= 18 balls
- 3 rows of 6 or 6 columns of 3

b Then number of rows is 3
- The number of tomatoes in each row is 5
- Total number of tomatoes is 5 + 5 + 5 = 15 tomatoes.
- The number of columns is 5.
- The number of tomatoes in each column is 3.
- Total number of tomatoes: 3 + 3 + 3 + 3 + 3
= 15 tomatoes
- 3 rows of 5 or 5 columns of 3

c Then number of rows is 4
- The number of cars in each row is 3
- Total number of cars: 3 + 3 + 3 + 3 = 12 cars.
- The number of columns is 3.
- The number of cars in each column is 4.
- Total number of cars: 4 + 4 + 4 = 12 cars.
- 4 rows of 3 or 3 columns of 4

Activity 2

a 
3 rows of 4

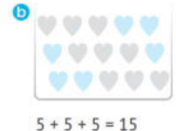
b 
6 columns of 3

Activity 3

a 4 + 4 + 4 = 12 b 5 + 5 + 5 + 5 = 20
c 3 + 3 + 3 = 9 d 5 + 5 = 10

Activity 4

a 
4 + 4 + 4 + 4 = 16

b 
5 + 5 + 5 = 15

Lesson 6

Multiplication

Activity 1

a Repeated addition: 6 + 6 + 6 + 6 = 24
Multiplication: 4 × 6 = 24
b Repeated addition: 5 + 5 + 5 = 15
Multiplication: 3 × 5 = 15
c Repeated addition: 4 + 4 + 4 + 4 + 4 = 20
Multiplication: 5 × 4 = 20

Activity 2

a 3 + 3 + 3 + 3 + 3 + 3 = 18
So, 6 X 3 = 18 and 3 X 6 = 18
b 4 + 4 + 4 + 4 + 4 = 20
So, 5 X 4 = 20 and 4 X 5 = 20

c) 6 + 6 + 6 = 18
So, 3 X 6 = 18 and 6 X 3 = 18

d) 2 + 2 + 2 + 2 = 8
So, 4 X 2 = 8 and 2 X 4 = 8

e) 7 X 4 = 4 + 4 + 4 + 4 + 4 + 4 + 4

f) 7 X 4 = 7 + 7 + 7 + 7

g) 5 X 8 = 8 + 8 + 8 + 8 + 8

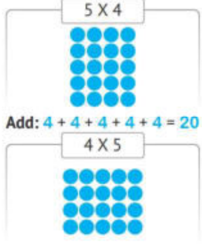
h) 3 X 6 = 3 + 3 + 3 + 3 + 3 + 3

Activity 3

a) 3 rows of 5 – 3 X 5 = 15
b) 4 rows of 4 – 4 X 4 = 16
c) 4 rows of 6 – 4 X 6 = 24
d) 6 columns of 3 – 6 X 3 = 18
e) 5 columns of 2 – 5 X 2 = 10
f) 6 columns of 1 – 6 X 1 = 6

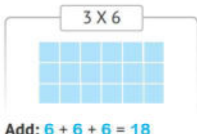
Activity 4

5 X 4



Add: 4 + 4 + 4 + 4 + 4 = 20

3 X 6



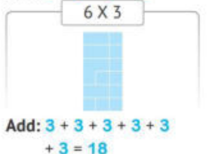
Add: 6 + 6 + 6 = 18

4 X 5



Add: 5 + 5 + 5 + 5 = 20

6 X 3



Add: 3 + 3 + 3 + 3 + 3 + 3 = 18

Lesson 7

Commutative Property in Multiplication

Activity 1

a) 2 rows of 4 – 2 X 4 = 8
4 rows of 2 – 4 X 2 = 8
So, 2 X 4 = 4 X 2

b) 4 rows of 3 – 4 X 3 = 12
3 rows of 4 – 3 X 4 = 12
So, 4 X 3 = 3 X 4

c) 6 rows of 3 – 6 X 3 = 18
3 rows of 6 – 3 X 6 = 18
So, 6 X 3 = 3 X 6

d) 6 rows of 1 – 1 X 6 = 6
1 row of 6 – 6 X 1 = 6
So, 6 X 1 = 1 X 6

e) – 5 X 2 = 10 – 2 X 5 = 10
So, 5 X 2 = 2 X 5

f) – 4 X 6 = 24 – 6 X 4 = 24
So, 4 X 6 = 6 X 4

Activity 2

a) 3 rows of 4 – 3 X 4 = 12
4 rows of 3 – 4 X 3 = 12
So, 3 X 4 = 4 X 3

b) 4 rows of 2 – 4 X 2 = 8
2 rows of 4 – 2 X 4 = 8
So, 4 X 2 = 2 X 4

c) – 6 X 2 = 12 – 2 X 6 = 12
So, 6 X 2 = 2 X 6

d) – 4 X 5 = 20 – 5 X 4 = 20
So, 4 X 5 = 5 X 4

Activity 3

a) 5 X 9 = 9 X 5
b) 7 X 2 = 2 X 7
c) 6 X 3 = 3 X 6
d) 8 X 3 = 3 X 8
e) If: 3 + 3 + 3 + 3 + 3 + 3 + 3 = 21, then 7 X 3 = 21
And if: 7 + 7 + 7 = 21, then 3 X 7 = 21
So, 7 X 3 = 3 X 7



Chapter 3

Lessons 1&2

Word Problems and Applications on Multiplication

Activity 1

a) 4 X 5 = 20 rolls
b) 6 X 3 = 18 cookies
c) 7 X 3 = 21 miles
d) 8 X 4 = 32 oranges

Activity 2

a) Mariam had 4 sweaters. Each sweater had 3 buttons on it. How many total buttons are there on all the sweaters? $4 \times 3 = 12$

b) Rana packed 6 boxes full of cans. Each box had 6 cans. How many total cans did Rana pack? $6 \times 6 = 36$

c) Amir hiked for 3 days over the summer. Each day he hiked 7 miles. How many miles did he hike in all?
$3 \times 7 = 21$

Activity 3

(Any story that contains 5 X 3 is accepted.)

ⓐ A bag of oranges contains 3 oranges. How many oranges are there in 5 bags. 5 × 3 = 15 oranges

ⓑ Each chair has four legs. How many legs are there in 6 chairs 6 × 4 = 24 legs

Lessons 3&4

Multiples

Activity 1

ⓐ 5 X 0 = 0 ⓑ 4 X 1 = 4
ⓒ 7 X 0 = 0 ⓓ 3 X 1 = 3
ⓔ 1 X 8 = 8 ⓕ 0 X 9 = 0
ⓖ 1 X 15 = 15 ⓗ 0 X 12 = 0

Multiples of 2 and 3

ⓐ 2 X 0 = 0 2 X 1 = 2
2 X 2 = 4 2 X 3 = 6
2 X 4 = 8 2 X 5 = 10
2 X 6 = 12 2 X 7 = 14
2 X 8 = 16 2 X 9 = 18
2 X 10 = 20 2 X 11 = 22
2 X 12 = 24

ⓑ 3 X 0 = 0 3 X 1 = 3
3 X 2 = 6 3 X 3 = 9
3 X 4 = 12 3 X 5 = 15
3 X 6 = 18 3 X 7 = 21
3 X 8 = 24 3 X 9 = 27
3 X 10 = 30 3 X 11 = 33
3 X 12 = 36

Activity 1

ⓐ 16 ⓑ 10 ⓒ 21 ⓓ 27
ⓔ 12 ⓕ 18 ⓖ 12 ⓗ 15

Activity 2

ⓐ 2 X 6 = 12 ⓑ 4 X 3 = 12
ⓒ 7 X 3 = 21 ⓓ 2 X 9 = 18
ⓔ 2 X 7 = 14 ⓕ 3 X 3 = 9
ⓖ 6 + 6 + 6 = 6 X 3 = 18 ⓗ 8 + 8 + 8 = 3 X 8 = 24
ⓘ 10 = 5 + 5 = 2 X 5 ⓙ 16 = 8 + 8 = 2 X 8

Multiples of 4 and 5

ⓐ 4 × 0 = 0 4 × 1 = 4
4 × 2 = 8 4 × 3 = 12
4 × 4 = 16 4 × 5 = 20
4 × 6 = 24 4 × 7 = 28
4 × 8 = 32 4 × 9 = 36
4 × 10 = 40 4 × 11 = 44
4 × 12 = 48

ⓑ 5 × 0 = 0 5 × 1 = 5
5 × 2 = 10 5 × 3 = 15
5 × 4 = 20 5 × 5 = 25
5 × 6 = 30 5 × 7 = 35
5 × 8 = 40 5 × 9 = 45
5 × 10 = 50 5 × 11 = 55
5 × 12 = 60

Activity 1

ⓐ 40 ⓑ 25 ⓒ 28 ⓓ 36
ⓔ 30 ⓕ 45 ⓖ 16 ⓗ 20

Activity 2

ⓐ 5 × 8 = 40 ⓑ 4 × 10 = 40
ⓒ 8 × 4 = 32 ⓓ 4 × 6 = 24
ⓔ 5 × 7 = 35 ⓕ 4 × 9 = 36
ⓖ 5 + 5 = 2 × 5 = 10 ⓗ 4 + 4 + 4 = 3 × 4 = 12
ⓘ 1 + 1 + 1 + 1 = 4 × 1 = 4
ⓙ 8 + 8 + 8 = 4 × 6 = 24
ⓚ 30 = 10 + 10 + 10 = 5 × 6
ⓛ 28 = 7 + 7 + 7 + 7 = 4 × 7

Multiples of 6 and 7

ⓐ 6 × 0 = 0 6 × 1 = 6
6 × 2 = 12 6 × 3 = 18
6 × 4 = 24 6 × 5 = 30
6 × 6 = 36 6 × 7 = 42
6 × 8 = 48 6 × 9 = 54
6 × 10 = 60 6 × 11 = 66
6 × 12 = 72

ⓑ 7 × 0 = 0 7 × 1 = 7
7 × 2 = 14 7 × 3 = 21
7 × 4 = 28 7 × 5 = 35
7 × 6 = 42 7 × 7 = 49
7 × 8 = 56 7 × 9 = 63
7 × 10 = 70 7 × 11 = 77
7 × 12 = 84

Activity 1

ⓐ 56 ⓑ 35 ⓒ 48 ⓓ 54
ⓔ 42 ⓕ 28 ⓖ 36 ⓗ 24
ⓘ 2 ⓙ 7 ⓚ 3 ⓛ 2
ⓜ 6 ⓝ 7 ⓞ 2 ⓟ 5

Activity 2

a 10, 12, 14, 16, 18, 20   b 20, 24, 28, 32, 36, 40
c 30, 36, 42, 48, 54, 60   d 35, 42, 49, 56, 63, 70

Activity 3

a 7 + 7 + 7 + 7 = 4 × 7 = 28
b 8 + 8 + 8 + 8 + 8 + 8 = 6 × 8 = 48
c 8 × 7 = 7 × 8 = 56
d 9 + 9 + 9 + 9 = 6 × 6 = 36
e 5 + 5 + 5 + 5 + 5 + 5 + 5 + 5 = 8 × 5 = 40

Activity 4

8 × 4 = 32

Activity 5

6 × 5 = 30

Multiples of 8, 9 and 10

a
8 × 0 = 0	8 × 1 = 8
8 × 2 = 16	8 × 3 = 24
8 × 4 = 32	8 × 5 = 40
8 × 6 = 48	8 × 7 = 56
8 × 8 = 64	8 × 9 = 72
8 × 10 = 80	8 × 11 = 88
8 × 12 = 96	

b
9 × 0 = 0	9 × 1 = 9
9 × 2 = 18	9 × 3 = 27
9 × 4 = 36	9 × 5 = 45
9 × 6 = 54	9 × 7 = 63
9 × 8 = 72	9 × 9 = 81
9 × 10 = 90	9 × 11 = 99
9 × 12 = 108	

c
10 × 0 = 0	10 × 1 = 10
10 × 2 = 20	10 × 3 = 30
10 × 4 = 40	10 × 5 = 50
10 × 6 = 60	10 × 7 = 70
10 × 8 = 80	10 × 9 = 90
10 × 10 = 100	10 × 11 = 110
10 × 12 = 120	

Activity 1

a 4   b 12   c 18   d 25   e 6
f 30   g 14   h 18   i 27   j 8
k 15   l 10   m 20   n 70   o 30
p 16   q 21   r 80

Activity 2

a 18, 15, 12, 9, 6, 3   b 30, 25, 20, 15, 10, 5
c 42, 35, 28, 21, 14, 7   d 54, 45, 36, 27, 18, 9

Activity 3

a 6 × 9 = 54   b 2 × 5 = 10   c 9 × 9 = 81

Activity 4

a 2 × 10 = 20   b 4 × 0 = 0   c 7 × 10 = 70
d 1 × 9 = 9   e 10 × 4 = 40   f 3 × 3 = 9
g 10 + 10 + 10 + 10 = 4 × 10 = 40
h 10 + 10 + 10 + 10 + 10 + 10 = 6 × 10 = 60
i 7 + 7 + 7 + 7 + 7 + 7 + 7 + 7 + 7 + 7 = 10 × 7 = 70

Lesson 5

Factors of a Number Using Arrays

Activity 1

a 1 × 6 , 6 × 1
2 × 3 , 3 × 2   *Factors are 1, 2, 3, 6*

b 1 × 8 , 8 × 1
2 × 4 , 4 × 2   *Factors are 1, 2, 4, 8*

c 1 × 18 , 18 × 1
2 × 9 , 9 × 2
3 × 6 , 6 × 3   *Factors are 1, 2, 3, 6, 9, 18*

d 25 × 1 , 1 × 25
5 × 5   *Factors are 1, 5, 25*

Activity 2

a 2   b 1   c 3   d 6

Activity 3

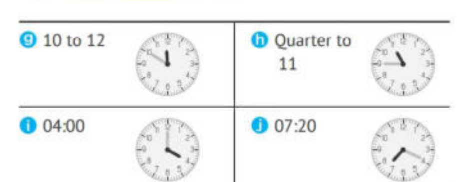
a → (3)   b → (1)   c → (4)   d → (2)

Lessons 6&7

Time – Applications on Time

Activity 1

a 9:00 9 o'clock	b 06:05 5 past 6
c 12:10 10 past 12	d 01:15 Quarter past 1
e Half past 7	f 25 to 4



g 10 to 12	h Quarter to 11
i 04:00	j 07:20
k 05:10 	l 12:35 

Activity 2

a 2 hours b 3 hours

Activity 3






3:00 3:10 01:10 01:20

Activity 4

– 40 minutes

Activity 5

– 20 minutes

Activity 6

– Quarter to 4 03:45

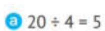


Lessons 8&9

Division – Applications on Division

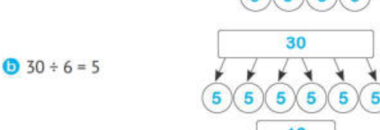


Activity 1

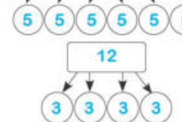


a $20 \div 4 = 5$

b $30 \div 6 = 5$



c $12 \div 3 = 4$



Activity 2

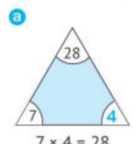
a 5 b 8 c 5 d 6 e 9
f 5 g 6 h 7 i 9

Lesson 10

The Relation Between Multiplication and Division

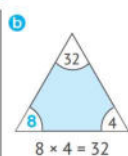
Activity 1

a



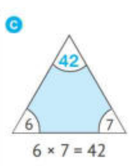
$7 \times 4 = 28$
$4 \times 7 = 28$
$28 \div 4 = 7$
$28 \div 7 = 4$

b



$8 \times 4 = 32$
$4 \times 8 = 32$
$32 \div 4 = 8$
$32 \div 8 = 4$

c



$6 \times 7 = 42$
$7 \times 6 = 42$
$42 \div 6 = 7$
$42 \div 7 = 6$

Activity 2

a 5 b 6 c 2 d 4 e 3
f 7 g 8 h 9 i 5

Activity 3

a 3 b 3 c 7 d 9 e 5
f 4 g 8 h 10 i 1

Activity 4

a 12 b 10 c 21 d 45 e 42
f 80 g 3 h 3 i 2 j 9
k 9 l 8

Activity 5

a $3 \times 5 = 15$ $15 \div 5 = 3$
b $3 \times 6 = 18$ $18 \div 6 = 3$

Chapter 4

Lesson 1

Polygons

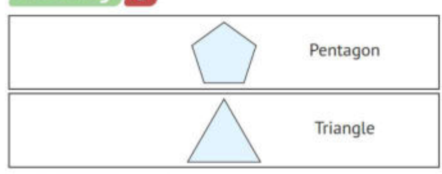
Activity 1



Activity 2



Activity 3



Activity 4

a The triangle has 3 sides, 3 angles and 3 vertices
b The pentagon has 5 sides but the hexagon has 6 sides
c The octagon has 8 angles but the heptagon has 7 sides
d The quadrilateral is a polygon that has 4 sides

Lesson 2

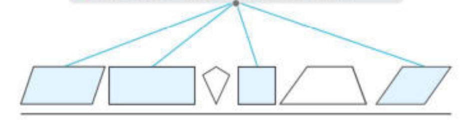
Properties of Quadrilaterals

Activity 1

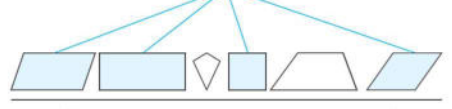
a → (3) b → (1) c → (2)
d → (6) e → (4) f → (5)

Activity 2

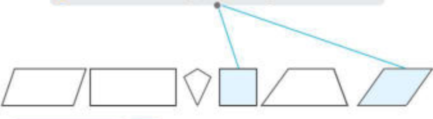
a Each two opposite sides are equal



b Each two opposite angles are equal



c All sides are equal in length



Activity 3

a All **sides** are **equal** in **square** and **rhombus**
b All **angels** are **equal** in **rectangle** and **square**
c A **trapezoid** has only **one pair** of **parallel opposite** sides
d A **kite** has **two pairs** of **equal adjacent sides** and **one pair of equal opposite angles**

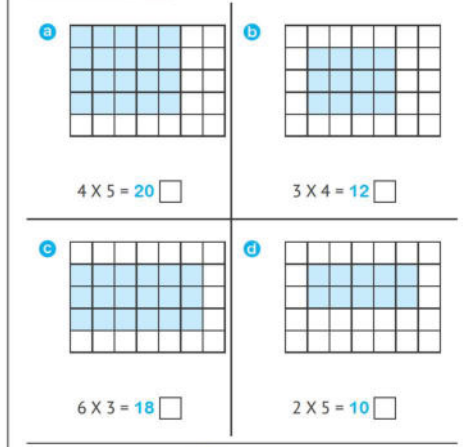
Lesson 3

Area

Activity 1

a 3 rows 7 columns
Area = 3 X 7 = 21 square units
b 4 rows 7 columns
Area = 4 X 7 = 28 square units
c Length = 7 units Width = 2 units
Area = 7 X 2 = 14 square units

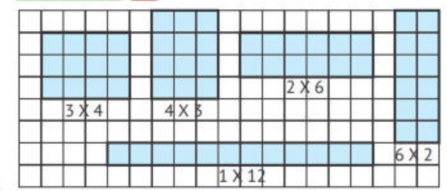
Activity 2



Lessons 4&5

Rectangles with Equal Area – Area Using Models

Activity 1



Guide Answers

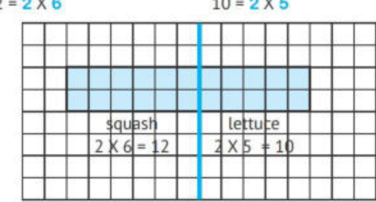
Activity 2



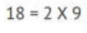
12 = 2 X 6



10 = 2 X 5



Activity 3

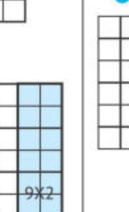


18 = 2 X 9

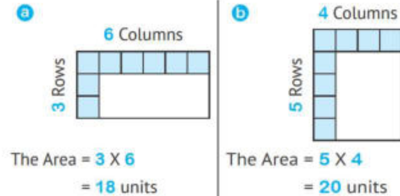
18 = 9 X 2

18 = 3 X 6

18 = 6 X 3

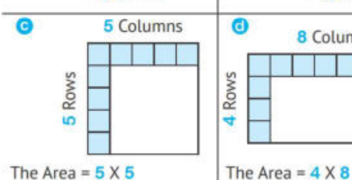


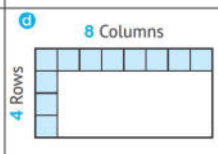
Activity 4



a The Area = 3 X 6 = 18 units

b The Area = 5 X 4 = 20 units





c The Area = 5 X 5 = 25 units

d The Area = 4 X 8 = 32 units

Lessons 6&7

Area by Splitting Arrays – Distributive Property on Multiplication

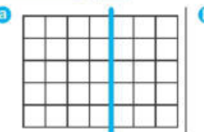
Activity 1

a (5 X 3) + (5 X 5) = 15 + 25 = 40

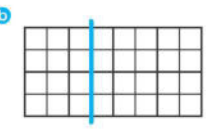
b (3 X 4) + (3 X 3) = 12 + 9 = 21

Activity 2

a



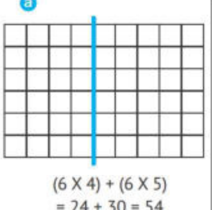
b



Activity 3

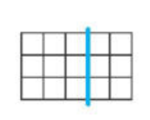
يوجد إجابات متعددة:

a



(6 X 4) + (6 X 5)
= 24 + 30 = 54

b



(3 X 3) + (3 X 2)
= 9 + 6 = 15

Activity 4

a 7 X 9 = (7 X 3) + (7 X 6)

b 5 X 8 = (5 X 3) + (5 X 5)

c 8 X 5 = (8 X 3) + (8 X 2)

d 3 X 6 = (3 X 3) + (3 X 3)

e 4 X 8 = (4 X 5) + (4 X 3)

Activity 5

a 7 X 13 = 7 X (10 + 3) = (7 X 10) + (7 X 3)
= 70 + 21 = 91

b 6 X 15 = 6 X (10 + 5) = (6 X 10) + (6 X 5)
= 60 + 30 = 90

c 3 X 18 = 3 X (10 + 8) = (3 X 10) + (3 X 8)
= 30 + 24 = 54

Activity 6

a (7 X 4) + (7 X 6) = 7 X 10 = 70

b (6 X 3) + (6 X 2) = 6 X 5 = 30

c (4 X 9) + (6 X 9) = 10 X 9 = 90

Chapter 5

Lesson 1

Perimeter of Polygons

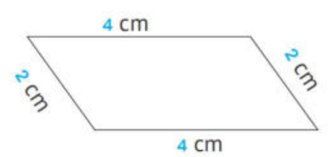
Activity 1

a Perimeter = 4 + 7 + 4 + 7 = 22 length units

b Perimeter = 5 + 5 + 5 + 5 = 20 length units

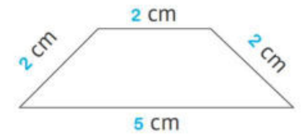
Activity 2

ⓐ



Perimeter = 4 + 2 + 4 + 2 = 12 cm

ⓑ



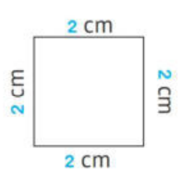
Perimeter = 5 + 2 + 2 + 2 = 11 cm

ⓒ



Perimeter = 4 + 2 + 4 + 2 = 12 cm

ⓓ



Perimeter = 2 + 2 + 2 + 2 = 8 cm

Lessons 2–4

Perimeter and Area – Area Using the Dimensions – Area Using Different Strategies

Activity 1

ⓐ Area = 5 X 7 = 35 square units

Perimeter = 5 + 7 + 5 + 7 = 24 length units

ⓑ Area = 5 X 5 = 25 square units

Perimeter = 5 + 5 + 5 + 5 = 20 length units

Activity 2

Shape	Perimeter	Area
1	3 + 4 + 3 + 4 = 14 length units	3 X 4 = 12 square units
2	2 + 7 + 2 + 7 = 18 length units	2 X 7 = 14 square units
3	5 + 6 + 5 + 6 = 22 length units	5 X 6 = 30 square units
4	7 + 3 + 7 + 3 = 20 length units	7 X 3 = 21 square units
5	1 + 5 + 1 + 5 = 12 length units	1 X 5 = 5 square units
6	3 + 3 + 3 + 3 = 12 length units	3 X 3 = 9 square units

Activity 3

The Shape	First Strategy	Second Strategy
	2 Rows of 4 4 + 4 = 8 Area = 8 square units	4 X 2 = 8 Area = 8 square units
	4 X 4 = 16 Area = 16 square units	4 + 4 + 4 + 4 = 16 Area = 16 square units
4 cm 2 cm	4 X 2 = 8 Area = 8 square cm	2 + 2 + 2 + 2 = 8 Area = 8 square cm
2 cm 2 cm	2 X 2 = 4 Area = 4 square cm	2 + 2 = 4 Area = 4 square cm

Activity 4

ⓐ ① 7 X 4 = 28 square units ② 9 X 5 = 45 square units

ⓑ ① 8 X 5 = 40 square units ② 6 X 3 = 18 square units

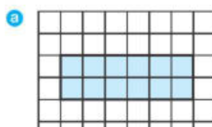
③ (First)

Lessons 5&6

Different Perimeters for the Same Area – Different Areas for the Same Perimeter

Activity 1

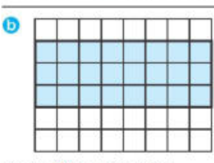
a

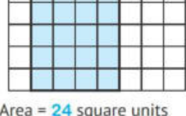


Area = 12 square units
Perimeter = 16 length units

Area = 12 square units
Perimeter = 14 length units

b

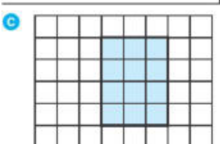


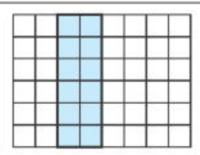


Area = 24 square units
Perimeter = 22 length units

Area = 24 square units
Perimeter = 20 length units

c



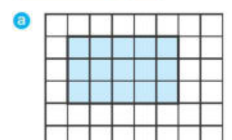


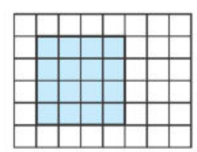
Area = 12 square units
Perimeter = 14 length units

Area = 12 square units
Perimeter = 16 length units

Activity 2

a

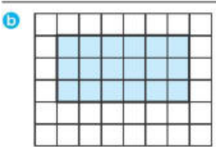


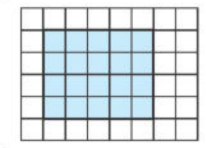


Area = 15 square units
Perimeter = 16 length units

Area = 16 square units
Perimeter = 16 length units

b

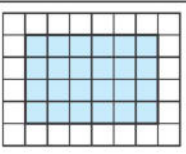




Area = 18 square units
Perimeter = 18 length units

Area = 20 square units
Perimeter = 18 length units

c

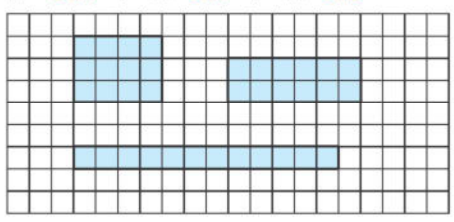


Area = 16 square units
Perimeter = 20 length units

Area = 24 square units
Perimeter = 20 length units

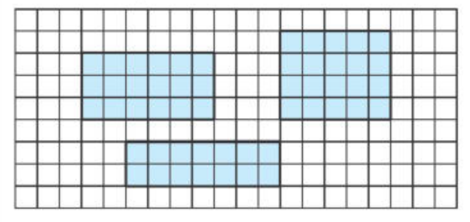
Activity 3

12 = 12 X 1 , 12 = 3 X 4 , 12 = 6 X 2



Activity 4

L + W = 7 + 2 , L + W = 5 + 4



Lesson 7

Applications on Perimeter and Area

Activity 1

The length of the border = 45 + 45 + 45 + 45 = 180cm

Activity 2

The area of the border = 7 X 6 = 42 tiles

Activity 3

The length of the wooden frame = 4 + 1 + 4 + 1
= 10 meter

Activity 4

The area = 3 X 2 = 6 square meter

Lesson 8

Multiplying by Multiples of 10

Activity 1

ⓐ 5 X 30 = 150 ⓑ 4 X 60 = 240
ⓒ 7 X 20 = 140 ⓓ 7 X 40 = 280
ⓔ 20 + 20 + 20 + 20 = 4 X 20 = 80
ⓕ 30 + 30 + 30 = 3 X 30 = 90
ⓖ 3 X 90 = 90 + 90 + 90 = 270
ⓗ 3 X 70 = 70 + 70 + 70 = 210

Activity 2

ⓐ 7 X 10 = 70 ⓑ 9 X 10 = 90 ⓒ 12 X 10 = 120
ⓓ 52 X 10 = 520 ⓔ 6 X 10 = 60 ⓕ 8 X 10 = 80
ⓖ 65 X 10 = 650

Activity 3

ⓐ 5 X 60 = 5 X 6 X 10 = 30 X 10 = 300
ⓑ 4 X 80 = 4 X 8 X 10 = 32 X 10 = 320
ⓒ 5 X 80 = 5 X 8 X 10 = 40 X 10 = 400
ⓓ 9 X 30 = 9 X 3 X 10 = 27 X 10 = 270
ⓔ 7 X 50 = 7 X 5 X 10 = 35 X 10 = 350
ⓕ 4 X 90 = 4 X 9 X 10 = 36 X 10 = 360



Lesson 1

Patterns of Multiplying by Multiples of 10

Activity 1

ⓐ 9 X 30 = 270 ⓑ 8 X 20 = 160
ⓒ 60 X 40 = 2,400 ⓓ 90 X 20 = 1,800
ⓔ 6 X 200 = 1,200 ⓕ 5 X 200 = 1,000
ⓖ 500 X 30 = 15,000 ⓗ 200 X 3,000 = 600,000

Activity 2

ⓐ 50 X 2 = 100 ⓑ 30 X 500 = 15,000
ⓒ 80 X 200 = 16,000 ⓓ 10 X 2,000 = 20,000
ⓔ 30 X 70 = 2,100 ⓕ 500 X 20 = 10,000
ⓖ 50 X 40 = 2,000 ⓗ 1,000 X 50 = 50,000

Activity 3

ⓐ (8 X 3) X 10 = 24 X 10 = 240
ⓑ (5 X 8) X 10 = 40 X 10 = 400
ⓒ (6 X 2) X 100 = 12 X 100 = 1,200
ⓓ (9 X 4) X 1,000 = 36 X 1,000 = 36,000

Lesson 2

Strategies of Multiplying by 9

Activity 1

– 5 X 9 = 45 – 8 X 9 = 72 – 9 X 2 = 18

Activity 2

ⓐ 9 X 7

7	7	7	7	7	7	7	7	7	~~7~~

9 X 7 = (10 X 7) – 7 = 70 – 7 = 63

ⓑ 9 X 5

5	5	5	5	5	5	5	5	5	~~5~~

9 X 5 = (10 X 5) – 5 = 50 – 5 = 45

ⓒ 9 X 8

8	8	8	8	8	8	8	8	8	~~8~~

9 X 8 = (10 X 8) – 8 = 80 – 8 = 72

ⓓ 9 X 3



9 X 3 = (10 X 3) – 3 = 30 – 3 = 27

Activity 3

ⓐ < ⓑ = ⓒ > ⓓ >

Activity 4

ⓐ 3 ⓑ 5 ⓒ 9 ⓓ 8 ⓔ 6 ⓕ 0

Lesson 3

Facts on Multiplication and Addition

Activity 1

ⓐ 4 + 0 = 4 ⓑ 0 + 6 = 6 ⓒ 8 X 0 = 0
ⓓ 0 X 7 = 0 ⓔ 7 + 1 = 8 ⓕ 1 + 3 = 4
ⓖ 6 X 1 = 6 ⓗ 1 X 4 = 4 ⓘ 6 X 9 = 54
ⓙ 9 X 6 = 54 ⓚ 7 + 3 = 10 ⓛ 4 + 5 = 9
ⓜ 8 + 8 = 16 ⓝ 9 X 2 = 18 ⓞ 2 X 7 = 14

Activity 2

a) 0 + 7 = 7 b) 1 X 7 = 7 c) 1 + 6 = 7
d) 1 + 7 = 8 e) 0 X 6 = 0 f) 4 + 3 = 3 + 4
g) 9 + 5 = 5 + 9 h) 8 X 4 = 4 X 8 i) 5 X 6 = 6 X 5
j) 7 + 7 = 7 X 2 k) 2 X 8 = 8 + 8 l) 9 + 9 = 2 X 9
m) 7 X 5 = (7 X 2) + (7 X 3) = 14 + 21 = 35
n) 9 X 12 = (9 X 10) + (9 X 2) = 90 + 18 = 108
o) 7 X 10 = (7 X 3) + (7 X 7) = 21 + 49 = 70

Activity 3

a) 5 X 0 = 0 b) 8 + 0 = 8 c) 6 X 1 = 6
d) 6 + 1 = 7 e) 6 + 7 = 7 + 6
f) 6 X 7 = 7 X 6 g) 7 X 8 = (7 X 5) + (7 X 3)

Lesson 4

Comparing and Ordering Numbers in Different Forms

Activity 1

a) Twenty-five thousand, six hundred and eleven
= 25,611 *(Standard Form)*

b) 700,618 (Word Form): Seven hundred thousand, six hundred eighteen

c) 700,000 + 70,000 + 5,000 + 800 + 50 + 3 = 775,853

d) 98 Thousands + 6 Ones + 5 Tens + 7 Hundreds = 98,756

e) 70 + 0 + 0 + 4 = 74

f) 7,856 = 7,000 + 800 + 50 + 6

g) 552,159 = 5 Tens + 552 Thousands + 9 Ones + 1 Hundred

h) The number that comes **just after** 36,299 is 36,300

i) The number 700,250 comes **just after** 700,249

j) The number 900,000 comes **just after** 899,999

k) The number that comes **just before** 75,000 is 74,999

l) The number 3,156 comes **just before** 3,157

m) The number 15,199 comes **just before** 15,200

n) The **place value** of the digit 5 in the number 224,569 is Hundreds

o) The **place value** of the digit 7 in the number 789,895 is Hundred Thousands

p) The **value** of the digit 7 in the number 79,159 is 70,000

q) The **value** of the digit 2 in the number 8,128 is 20

r) The **largest** 5-digit number is 99,999

s) The **smallest** 6-digit number is 100,000

t) The **largest** and the **smallest** numbers formed from the digits (7, 2, 0, 6 and 3) are 76,320 and 20,367

Activity 2

	The Number	The Place Value of the Encircled Digit	The Value of the Encircled Digit
a	(4)55,369	Hundred-thousands	400,000
b	3(6)2,512	Ten-thousands	60,000
c	28(0),239	Thousands	0
d	696,2(7)4	Tens	70
e	51,78(0)	Ones	0
f	39,(9)24	Hundreds	900

Activity 3

a) (3 , 5 , 0 , 4 , 7)

The **largest** number: 75,430

The **smallest** number: 30,457

b) (8 , 5 , 4)

The **largest** 6-digit number: 888,854

The **smallest** 6-digit number: 444,458

Activity 4

a) < b) < c) > d) < e) =
f) < g) = h) < i) <

Lesson 5

Addition Strategies

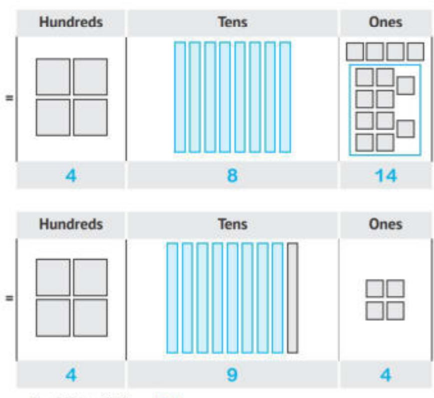
Activity 1

a) 275 + 219:

Hundreds	Tens	Ones
2	7	5

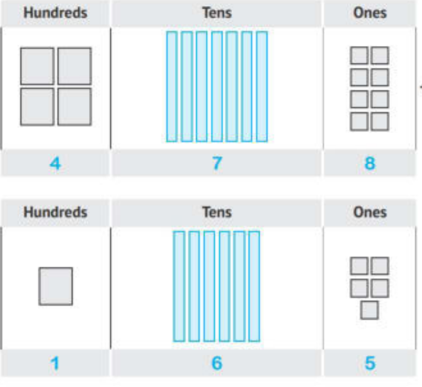
+

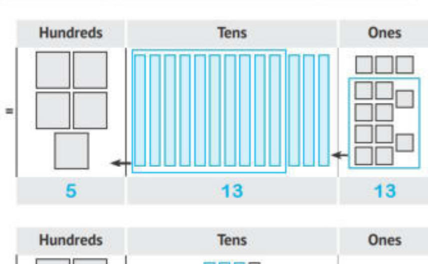
Hundreds	Tens	Ones
2	1	9

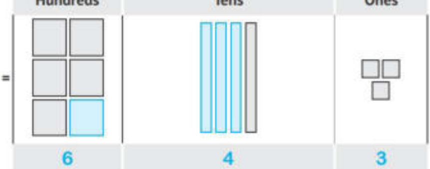


So, 275 + 219 = 494

ⓑ 478 + 165:







So, 478 + 165 = 643

Activity 2

	Problem	Work Space	Sum
ⓐ	567 + 321	500 + 60 + 7 300 + 20 + 1 800 + 80 + 8	888
ⓑ	783 + 138	700 + 80 + 3 100 + 30 + 8 800 + 110 + 11	921
ⓒ	6,237 + 1,582	6,000 + 200 + 30 + 7 1,000 + 500 + 80 + 2 7,000 + 700 + 110 + 9	7,819
ⓓ	2,514 + 279	2,000 + 500 + 10 + 4 + 200 + 70 + 9 2,000 + 700 + 80 + 13	2,793

Activity 3

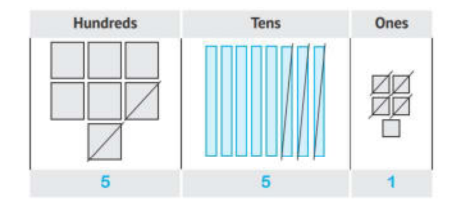
	Problem	Work Space	Sum
ⓐ	567 + 321	+300, +20, +1 567 867 887 888	888
ⓑ	6,237 + 1,582	+1,000, +500, +80, +2 6,237 7,237 7,737 7,817 7,819	7,819
ⓒ	2,514 + 279	+200, +70, +9 2,514 2,714 2,784 2,793	2,793
ⓓ	2,481 + 503	+500, +3 2,481 2,981 2,984	2,984

Lesson 6

Subtraction Strategies

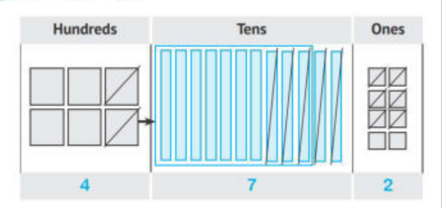
Activity 1

ⓐ 785 − 234 = 551



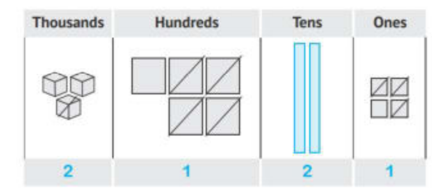
Check: 234 + 551 = 785

ⓑ 628 – 156 = 472



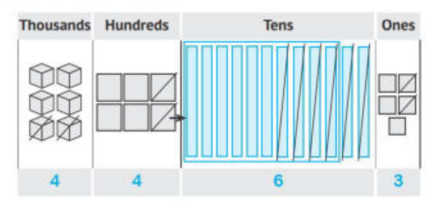
Check: 156 + 472 = 628

ⓒ 3,524 – 1,403 = 2,121



Check: 1,403 + 2,121 = 3,524

ⓓ 6,625 – 2,162 = 4,463



Check: 2162 + 4463 = 6625

Activity 2

	Subtraction Problem	Check
ⓐ	853 – 532 = 321 –2, –30, –500 321 323 353 853	532 + 321 853
ⓑ	7,625 – 1,213 = 6,412 –3, –10, –200, –1,000 6,412 6,415 6,425 6,625 7,625	1,213 + 6,412 7,625
ⓒ	5,328 – 416 = 4,912 –6, –10, –400 4,912 4,918 4,928 5,328	416 + 4,912 5,328

Lesson 7

Applications on Addition and Subtraction

Activity 1

ⓐ 435 + 317 = 752 ⓑ 278 + 107 + 239 = 624

ⓒ 239 – 107 = 132 ⓓ P1

Activity 2

4,590 – 2,410 = 2,180 LE

Activity 3

ⓐ 3,340 + 692 = 4,032 LE ⓑ 5,000 – 4,032 = 968 LE

Activity 4

5,350 – 2,120 = 3,230 eggs

Lessons 8&9

Capacity – Reading Capacity)

Activity 1

ⓐ 

ⓑ 

Activity 2

ⓐ 

ⓑ 

Activity 3

ⓐ Liter ⓑ Milliliter ⓒ Milliliter ⓓ Liter ⓔ Liter

ⓕ Milliliter ⓖ Milliliter ⓗ Liter ⓘ Milliliter

Activity 4

ⓐ 1 liter = 1,000 milliliters

ⓑ 5 000 ml = 5 liters

ⓒ 2 liters = 2,000 milliliters

ⓓ 7,000 ml = 7 liters

ⓔ To measure the capacity of the tea cup, we use milliliters

ⓕ The liter is used to measure capacity

Activity 5

– 90 ml – 30 ml – 70 ml

PONY

سلسلة كتب الأستاذ

2025

MATH

EXERCISES, FINAL REVISION & EXAMS

3 PRIMARY

FIRST TERM



Lesson 1 Patterns

1 **Match each number pattern with the appropriate rule:**



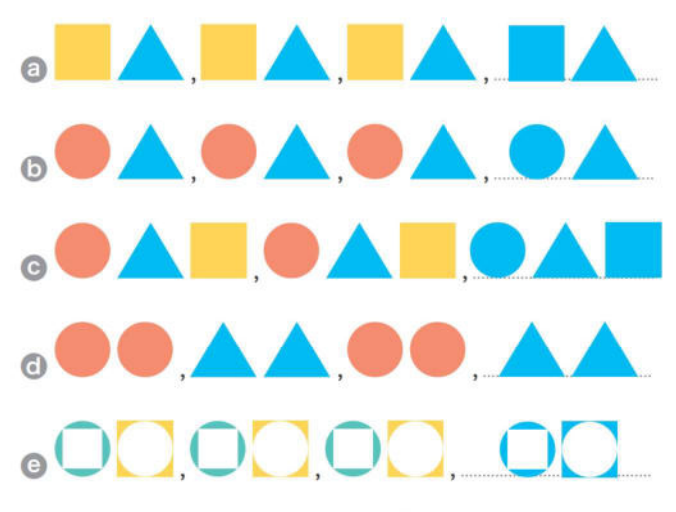
	Pattern		Rule	
a	2 , 4 , 6 , 8 , 10 , 12 ,…….		+ 3	1
b	3 , 6 , 9 , 12 , 15 ,…….		– 5	2
c	45 , 40 , 35 , 30 , 25 ,…….		+ 2	3
d	48 , 44 , 40 , 36 , 32 , 28 ,…….		– 9	4
e	2 , 7 , 12 , 17 , 22 , 27 ,…….		– 4	5
f	81 , 72 , 63 , 54 , 45 ,…….		+ 5	6

2 **Match each visual pattern with the appropriate rule:**

a
b
c
d
e
f

1
2
3
4
5
6

3 Complete the pattern:



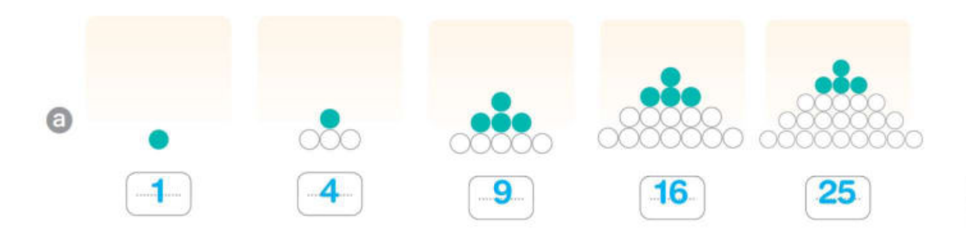
f AB , AABB , AAABBB , AAAABBBB

g UUnn, UUnn, UUnn, UUnn

h 50 , 60 , 70 , 80 , 90 , 100

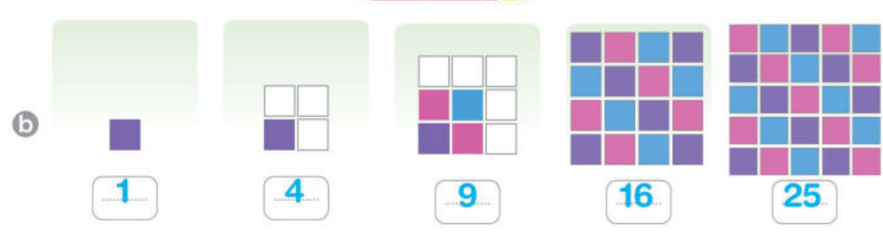
i 60 , 50 , 40 , 30 , 20 , 10

4 Look at the images, then figure out the next two images in the pattern:





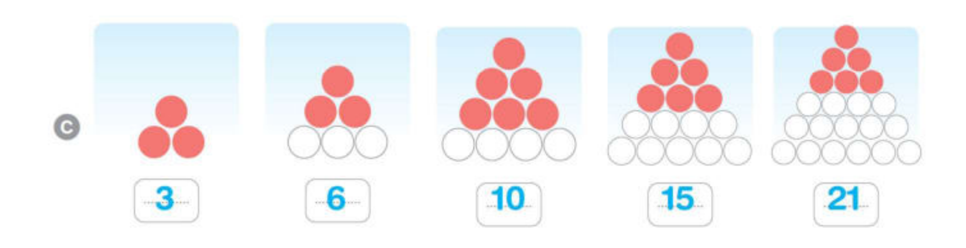
b



1 4 9 16 25

---

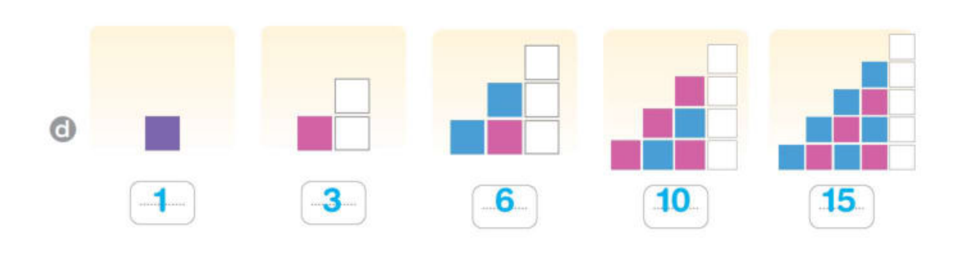
c



3 6 10 15 21

---

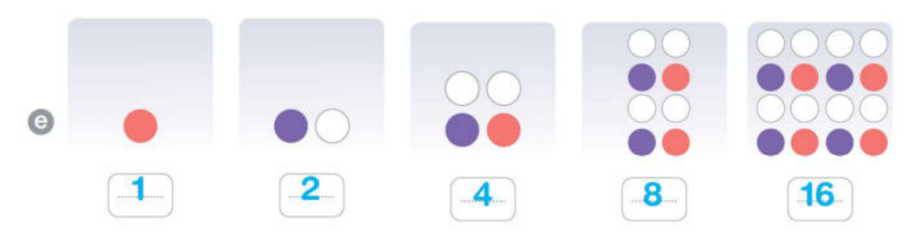
d



1 3 6 10 15

---

e



1 2 4 8 16

5 Find out the pattern, then complete in the same sequence:

	Rule
a) 12 , 13 , 14 , 15 , 16 , 17 , 18 , 19	+1
b) 45 , 44 , 43 , 42 , 41 , 40 , 39 , 38	–1
c) 22 , 24 , 26 , 28 , 30 , 32 , 34 , 36	+2
d) 68 , 66 , 64 , 62 , 60 , 58 , 56 , 54	–2
e) 10 , 13 , 16 , 19 , 22 , 25 , 28 , 31	+3
f) 50 , 47 , 44 , 41 , 38 , 35 , 32 , 29	–3
g) 5 , 10 , 15 , 20 , 25 , 30 , 35 , 40	+5
h) 100 , 95 , 90 , 85 , 80 , 75 , 70 , 65	–5
i) 0 , 10 , 20 , 30 , 40 , 50 , 60 , 70	+10
j) 90 , 80 , 70 , 60 , 50 , 40 , 30 , 20	–10

6 Find out the pattern, then complete in the same sequence:

a) 1 , 2 , 4 , 7 , 11 , 16 , 22 , 29 , 37 , 46

b) 1 , 2 , 4 , 8 , 16 , 32 , 64 , 128 , 256

c) 1 , 1 , 2 , 3 , 5 , 8 , 13 , 21 , 34

Accumulative Assessment 1 up to Lesson 1

Chapter 1

First: Choose the correct answer:

a) Thirty-five (in digits) = ... (30 or **35** or 53)

b) 3 Hundreds + 5 Tens + 2 Ones = ... (352 or **253** or 532)

c) 30 + 50 = ... (35 or 53 or **80**)

d) 10 Tens = ... Hundreds (100 or 10 or **1**)

e) The number **after** 29 is .... (28 or **30** or 29)

Second: Complete the following:

a) 5 Ones + 7 Tens = **75**

b) The **smallest** 2-digit number is **10** .

c) The **value** of the digit 5 in **5**8 is **50** .

d) The **greatest** number formed from the digits 5 and 8 is **85** .

e) 20 , 25 , 30 , 35 , **40** , **45** , **50**

Third: Answer the following:

a) Find out the pattern, then complete in the same pattern:



b) Find the result:

1. 215 + 123 = **338**
2. 750 − 120 = **630**
3. 7 + 5 = **12**
4. 13 − 9 = **4**

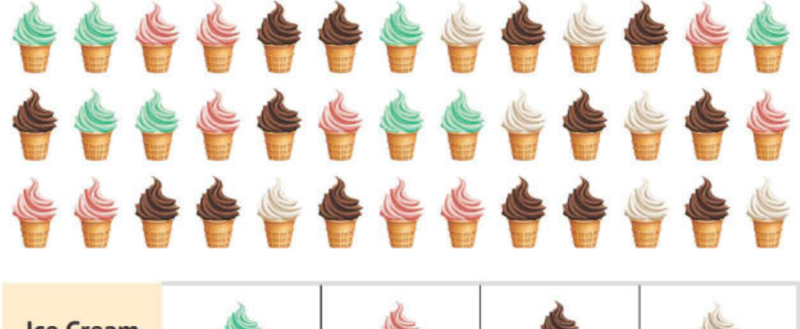
c) Eman has **125**LE and Nada has **215**LE.

How much money do they have altogether?

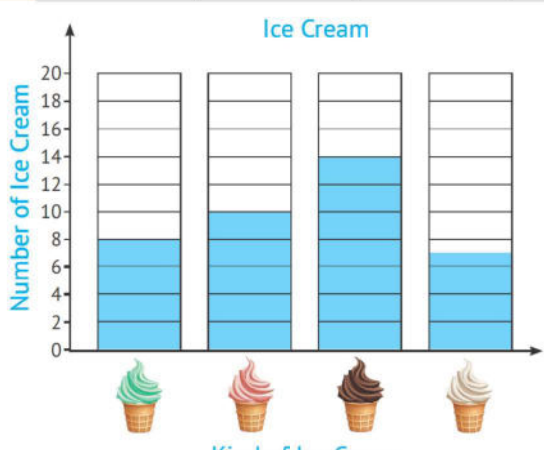
125 + 215 = 340

Lesson 2 More of Bar Graphs

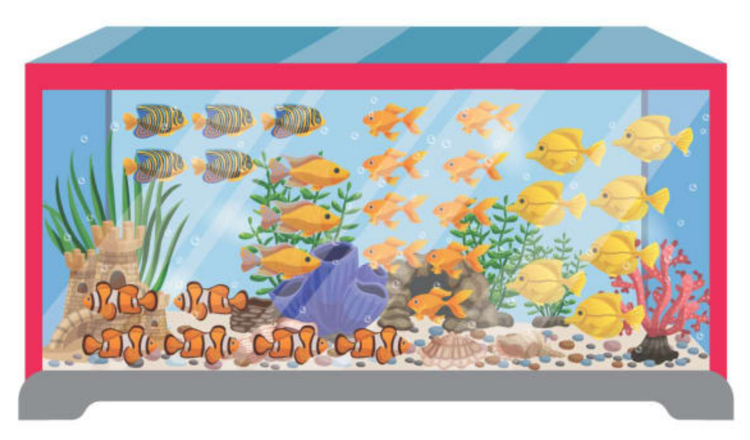
1 The following ice cream pieces show the store's sales, make a tally table to count the ice cream pieces, then complete the bar graph.



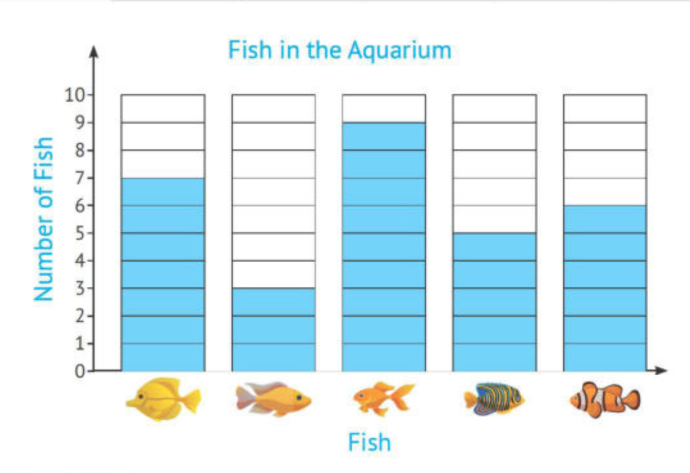
Ice Cream	(mint)	(strawberry)	(chocolate)	(vanilla)
Tally Marks	卌 |||	卌 卌	卌 卌 ||||	卌 ||
Number	8	10	14	7



2 There are different **fish** in the aquarium.
Complete the following tally table to count the fish, then complete the bar graph.

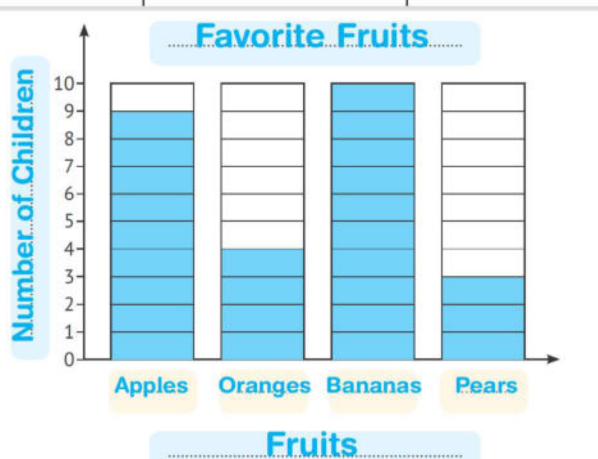


Fish	(yellow tang)	(orange fish)	(goldfish)	(angelfish)	(clownfish)
Tally Marks	𝍸 II	III	𝍸 IIII	𝍸	𝍸 I
Number	7	3	9	5	6



3 These are the favorite fruits of a number of children. Use the following table to complete the bar graph.

Favorite Fruit	Tallies	Number of Children
Apple	𝍸 ||||	9
Orange	||||	4
Banana	𝍸 𝍸	10
Pear	|||	3



ⓐ How many children liked apples?

9

ⓑ How many children liked pears and bananas?

3 + 10 = 13

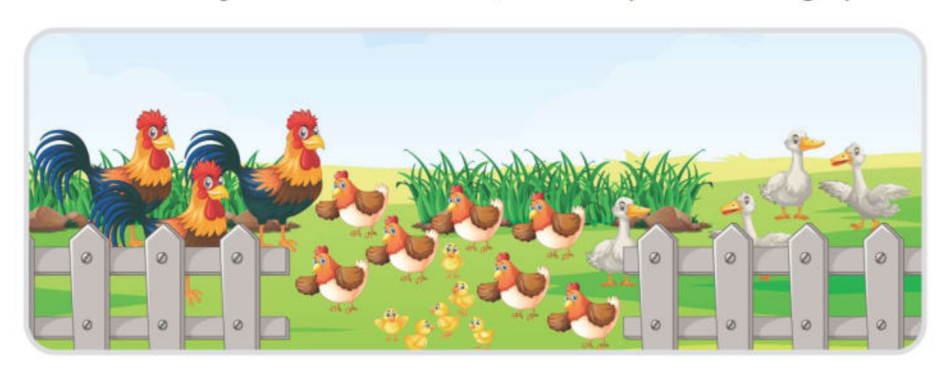
ⓒ Which fruit is liked the most?

bananas

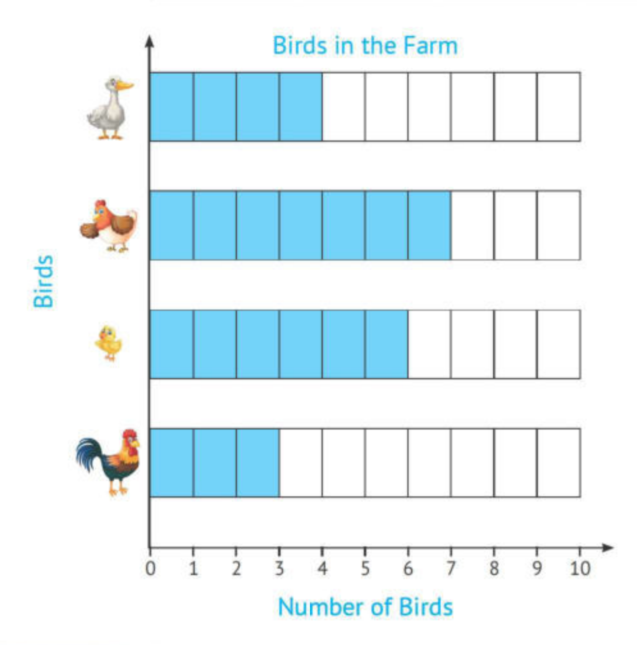
ⓓ Which fruit is liked the least?

pears

4 The following picture shows the number of **birds** in a farm.
Make a tally table to count them, then complete the bar graph.



Birds	rooster	chick	hen	duck
Number of Birds	3	6	7	4



Accumulative Assessment 2 up to Lesson 2

Chapter 1

First: Choose the correct answer:

a) The **greatest** 2-digit number is .... (90 or (99) or 10)

b) 5 + 30 = ... (53 or 80 or (35))

c) 7 + 0 + 5 = ... (705 or 75 or (12))

d) 45 + 23 = ... ((68) or 86 or 77)

e) The **value** of the digit 5 in 7**5** is .... ((5) or 50 or 500)

Second: Complete the following:

a) The number that comes just **after** 39 is ....40.... .

b) 98 - 36 = ...62....

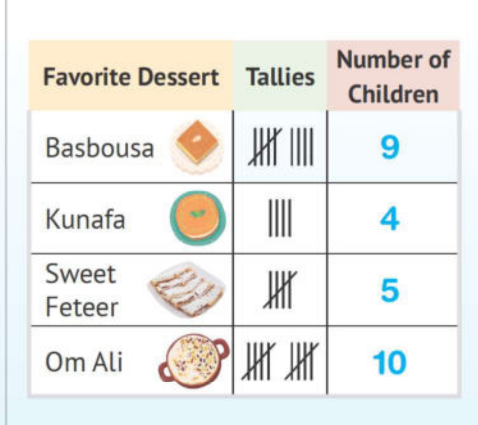
c) 35 + ...44.... = 79

d) 

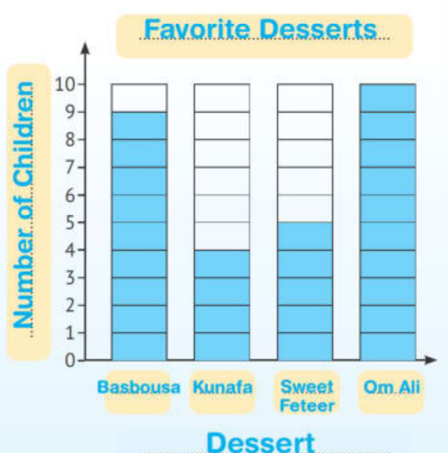
e) 

10 , 20 , 30 , 40 , ...50.... , ...60.... , ...70....

Third: These are the favorite desserts of a number of children. Use the following table to complete the bar graph.



Favorite Dessert	Tallies	Number of Children
Basbousa	𝍸 ||||	9
Kunafa	||||	4
Sweet Feteer	𝍸	5
Om Ali	𝍸 𝍸	10





Lesson 3 Line Plot

1 The following numbers are the results of a test taken by a class of 24 students:

18	12	13	16	17	17	13	17
16	14	11	18	14	19	11	17
21	21	22	18	11	16	15	14

a. The **lowest** mark: 11

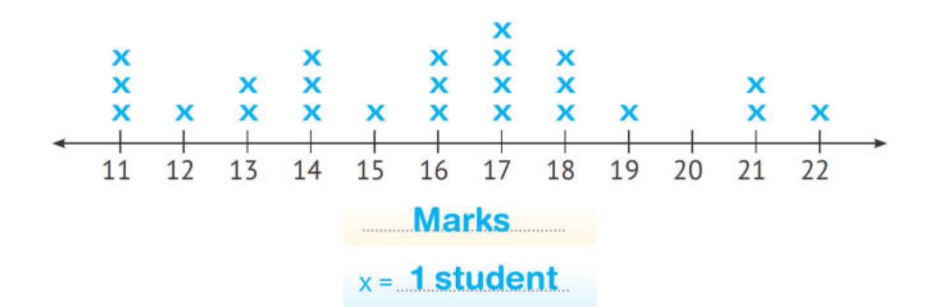
b. The **greatest** mark: 22

c. **The number of times each mark is repeated:**

Marks	11	12	13	14	15	16	17	18	19	20	21	22
Frequency	3	1	2	3	1	3	4	3	1	0	2	1

d. **The line plot:**

Test Results



Marks

x = 1 student

2 **Create a line plot using eggs in the basket data:**

Make sure to give your line plot a title and a key.



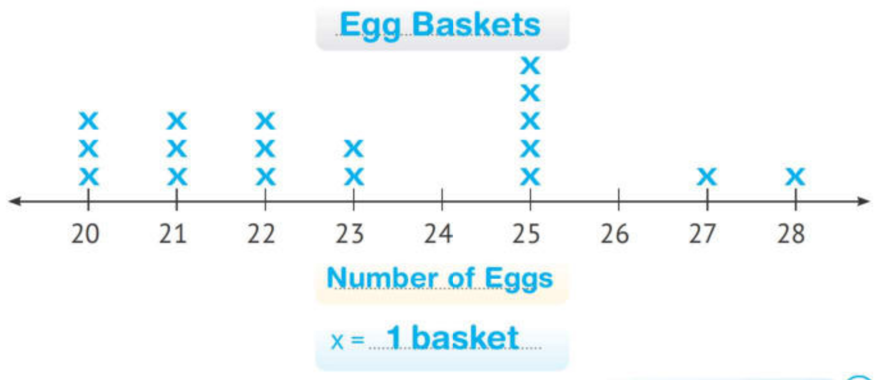
ⓐ The **lowest** value: 20

ⓑ The **greatest** value: 28

ⓒ **The number of times each number is repeated:**

Number of Eggs	20	21	22	23	24	25	26	27	28
Frequency	3	3	3	2	0	5	0	1	1

ⓓ **The line plot:**



3 The following data shows the weights of 20 children in kilograms. Create a line plot using this data:

55	50	54	54	51	55	52	53	57	58
58	58	58	54	53	57	51	50	50	52

ⓐ The **lowest** value: 50

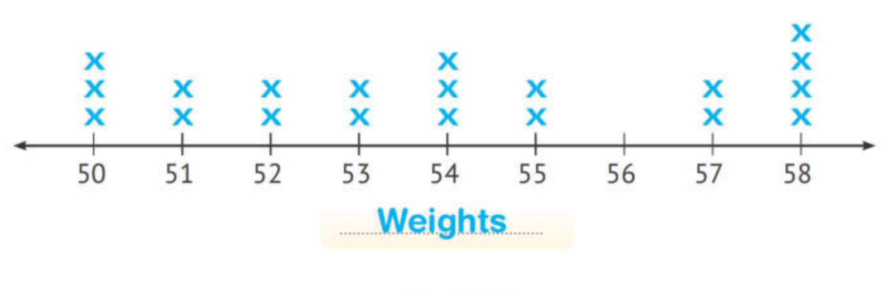
ⓑ The **greatest** value: 58

ⓒ **The number of times each number is repeated:**

Weight	50	51	52	53	54	55	56	57	58
Frequency	3	2	2	2	3	2	0	2	4

ⓓ **The line plot:**

Children's Weights



Weights

x = 1 child

4 **The following data shows the number of students in each of the school's 20 classes. Create a line plot using this data:**

45	40	46	45	39	40	41	43	45	38
44	45	39	43	40	43	38	41	44	39

ⓐ The **lowest** value: ......38......

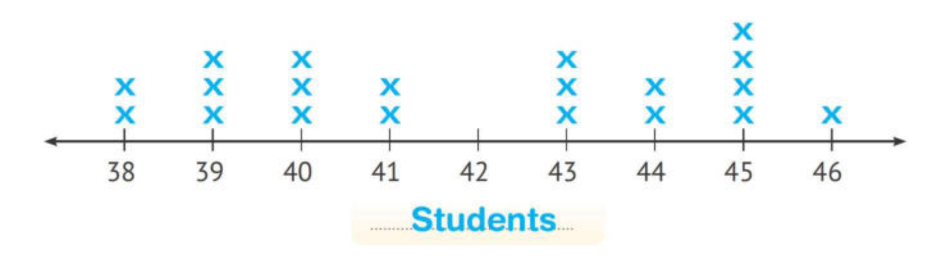
ⓑ The **greatest** value: ......46......

ⓒ **The number of times each number is repeated:**

Number of Students	38	39	40	41	42	43	44	45	46
Frequency	2	3	3	2	0	3	2	4	1

ⓓ **The line plot:**

Number of Students in 20 classes

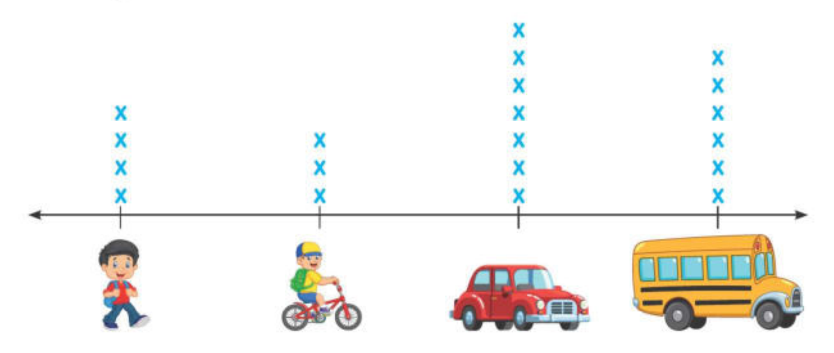


......Students......

x = ...1 class......



5 **The following line plot represents the means of transportation used by 20 students to reach school:**



Means of Transportation

X = 1 student

- **Answer the following questions:**

ⓐ How many students go to school by bus?

6

ⓑ How many students go to school by car?

7

ⓒ How many students go to school by bicycle?

3

ⓓ How many students go to school on foot?

4

ⓔ What is the most popular mean of transportation for students?

Car

ⓕ How many more students go to school by car than by bus?

$7 - 6 = 1$

6 The following line plot shows the favorite fruit for 25 children:



Favorite Fruit

X = 1 child

- **Complete the following table:**

Favorite Fruit	Apple	Orange	Banana	Kiwi	Pear
Number of Children	6	4	7	5	3

- **Answer the following questions:**

ⓐ How many children liked oranges?

4

ⓑ How many more children liked apples than pears?

$6 - 3 = 3$

ⓒ How many children altogether liked kiwis, apples, and oranges?

$5 + 6 + 4 = 15$

ⓓ Which fruit is liked the most?

Bananas

ⓔ Which fruit is liked the least?

Pears

Accumulative Assessment 3 up to Lesson 3

Chapter 1

First: Choose the correct answer:

a The **smallest** number formed from 5 , 0, and 3 is .... (503 or (305) or 350)

b 7 + 20 + 800 = ... (728 or 278 or (827))

c One hundred and ten = ... ((110) or 101 or 111)

d 580 comes just **after** .... (581 or (579) or 570)

e The **place value** of 3 in 534 is .... (Hundreds or Ones or (Tens))

Second: Complete the following:

a The **largest** 3-digit number is ....999.... .

b The **value** of the digit 0 in 209 is ....0.... .

c 105 , 100 , 95 , 90 , ...85.... , ...80.... , ...75....

d 500 = ...50.... Tens

e The number that comes just **before** 600 is ....599....

Third: Answer the following:

a Find the result:

1. 585 + 315 = ...900....
2. 58 – 18 = ...40....
3. 97 + 16 = ...113....
4. 800 – 86 = ...714....

b Arrange the following numbers in an **ascending** order:

405 , 504 , 450 , 540 , 500

• ....405.... , ...450.... , ...500.... , ...504.... , ...540....

c Shimaa had 750 LE, she bought a T-shirt for 185 LE.
Find the remaining money with her.

• The remainder: ....750.... – ....185.... = ...565.... LE.

Lessons 4-6 Measuring Lengths in (Centimeter, Meter, and Millimeter)

1 **See the pictures below. Determine what is the appropriate length unit for measuring these things, then write it under the picture:**
[Millimeter (mm), centimeter (cm) or meter (m)].



2 Use the ruler to measure the length of each object in centimeters:

ⓐ 7 centimeters

ⓑ 2 centimeters

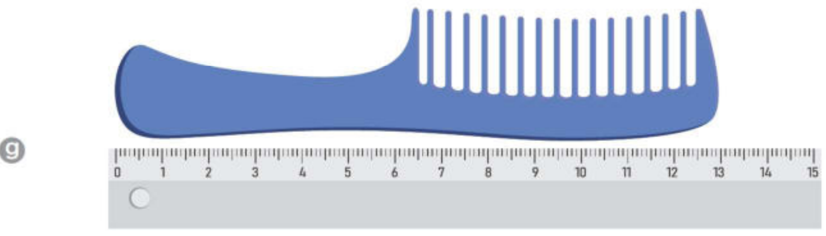
ⓒ 4 centimeters

ⓓ 5 centimeters

ⓔ 9 centimeters

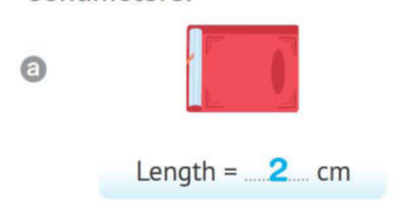
ⓕ 3 centimeters

ⓖ

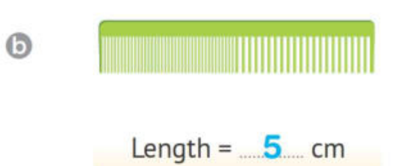


13 centimeters

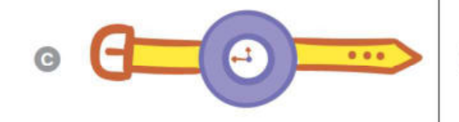
3 **Use the ruler to measure the length of each of the following in centimeters:**

ⓐ 

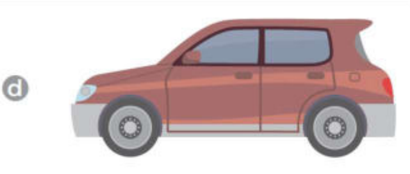
Length = ...2...... cm

ⓑ 

Length = ...5...... cm

ⓒ 

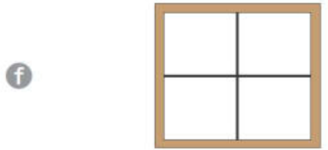
Length = ...6...... cm

ⓓ 

Length = ...6...... cm

ⓔ 

Length = ...5...... cm

ⓕ 

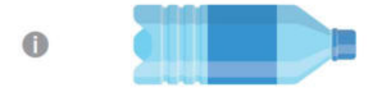
Length = ...3...... cm

ⓖ

Length = ...6...... cm

ⓗ 

Length = ...3...... cm

ⓘ 

Length = ...4...... cm

ⓙ 

Length = ...2...... cm

4 Choose the appropriate length for each of the following:

ⓐ (10 mm , 10 cm , 10 m)

ⓑ (2 mm , 2 cm , 2 m)

ⓒ (25 mm , 25 cm , 25 m)

ⓓ (150 mm , 150 cm , 150 m)

ⓔ (25 mm , 25 cm , 25 m)

ⓕ (4 mm , 4 cm , 4 m)

ⓖ (15 mm , 15 cm , 15 m)

ⓗ (3 mm , 3 cm , 3 m)

ⓘ (3 mm , 3 cm , 3 m)

ⓙ (12 mm , 12 cm , 12 m)

5 Complete:

ⓐ 1 m = 100 cm　　ⓑ 9 m = 900 cm

ⓒ 2 m = 200 cm　　ⓓ 6 m = 600 cm

ⓔ 400 cm = 4 m　　ⓕ 300 cm = 3 m

ⓖ 700 cm = 7 m　　ⓗ 500 cm = 5 m

ⓘ 8 cm = 80 mm　　ⓙ 1 cm = 10 mm

ⓚ 12 cm = 120 mm　　ⓛ 10 cm = 100 mm

ⓜ 50 cm = 500 mm　　ⓝ 54 cm = 540 mm

ⓞ 600 cm = 6 m　　ⓟ 90 mm = 9 cm

ⓠ 750 mm = 75 cm　　ⓡ 700 mm = 70 cm

ⓢ 900 mm = 90 cm　　ⓣ 120 mm = 12 cm

6 Complete:

ⓐ 3 m + 75 cm = 300 cm + 75 cm = 375 cm

ⓑ 2 m + 20 cm = 200 cm + 20 cm = 220 cm

ⓒ 5 m + 2 cm = 502 cm　　ⓓ 6 m + 7 cm = 607 cm

ⓔ 9 m + 45 cm = 945 cm　　ⓕ 4 m + 60 cm = 460 cm

7 Complete:

ⓐ 6 cm + 3 mm = 60 mm + 3 mm = 63 mm

ⓑ 20 cm + 4 mm = 200 mm + 4 mm = 204 mm

ⓒ 15 cm + 2 mm = 152 mm　　ⓓ 16 cm + 7 mm = 167 mm

ⓔ 90 cm + 6 mm = 906 mm　　ⓕ 10 cm + 8 mm = 108 mm

8 Complete:

ⓐ 245 cm = ...2...... m + ...45...... cm

ⓑ 372 cm = ...3...... m + ...72...... cm

ⓒ 750 cm = ...7...... m + ...50...... cm

ⓓ 140 cm = ...1...... m + ...40...... cm

ⓔ 803 cm = ...8...... m + ...3...... cm

ⓕ 402 cm = ...4...... m + ...2...... cm

9 Complete:

ⓐ 24 mm = ...2...... cm + ...4...... mm

ⓑ 72 mm = ...7...... cm + ...2...... mm

ⓒ 102 mm = ...10...... cm + ...2...... mm

ⓓ 607 mm = ...60...... cm + ...7...... mm

ⓔ 617 mm = ...61...... cm + ...7...... mm

ⓕ 425 mm = ...42...... cm + ...5...... mm

10 Measure the side lengths using the ruler:

ⓐ





......5...... cm

ⓑ





......4...... cm

ⓒ



......2...... cm

Accumulative Assessment 4 up to Lesson 6

Chapter 1

First: Choose the correct answer:

a 10 cm + 5 mm = ... mm (105 or 15 or 1 005)

b 15 m = ... cm (15 or 150 or 1 500)

c 5 + 0 + 6 = ... (56 or 506 or 11)

d The number that comes just **after** 309 is .... (310 or 301 or 319)

e The **largest** 3-different-digit number is .... (999 or 987 or 102)

Second: Complete the following:

a 205 cm = ...2... m + ...5... cm

b 204 = ...2... Hundreds + ...0... Tens + ...4... Ones

c The **value** of the digit 0 in 301 is ...0... .

d Two hundred two (in digits): ...202...

e 

Third: Answer the following:

a **Find the result:**

1. 859 + 41 = ...900...
2. 700 - 25 = ...675...

b **Complete using (< , = or >):**

1. 50 m + 25 cm [>] 525 cm
2. 666 [>] 499
3. 8 cm + 5 mm [<] 805 cm
4. 182 [<] 427

c **Arrange the following lengths in an ascending order:**

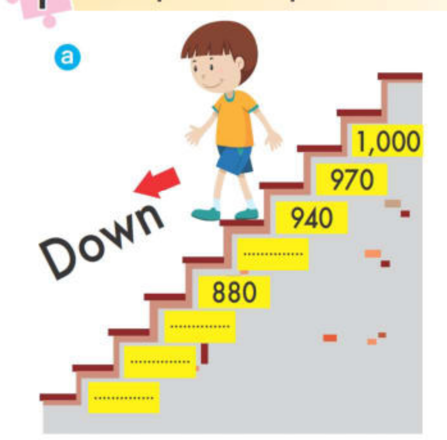
5 cm , 50 m , 500 mm , 550 cm

• ...5cm... , ...500mm... , ...550cm... , ...50m...

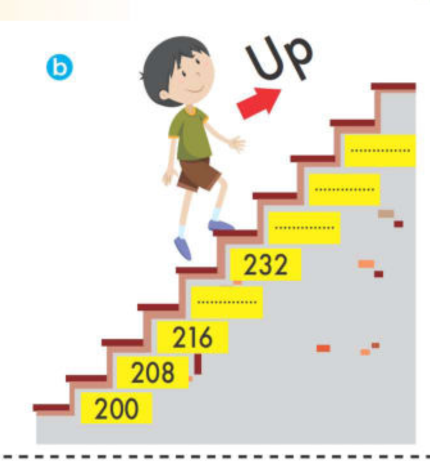


1 Complete the pattern:

a



b



2 Match each measurement to its suitable length:

a



b



c

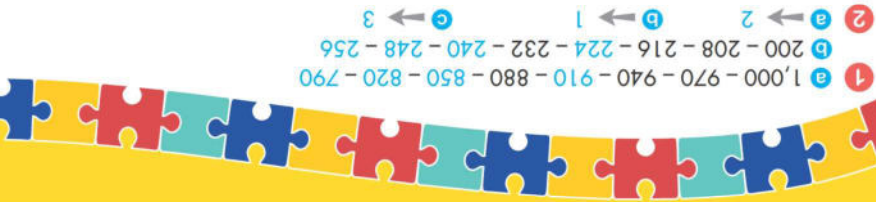


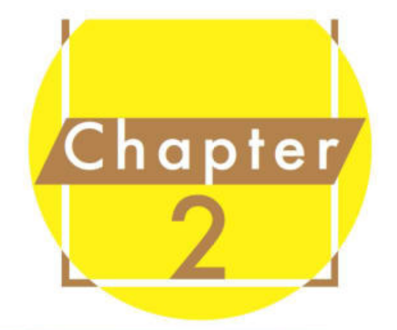










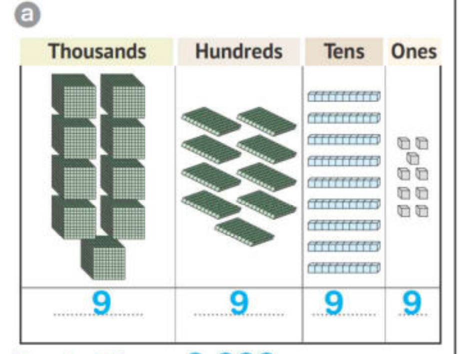


Lessons 1-4 Thousands, Ten Thousands, and Hundred Thousands – Numbers in Different Forms

First: Reading and Writing Numbers Up to 999,999

1 Write the number shown on the figure:

ⓐ



Thousands	Hundreds	Tens	Ones
9	9	9	9

Standard Form: 9,999

Word Form: Nine thousand, nine hundred ninety-nine

ⓑ

Thousands	Hundreds	Tens	Ones
7	0	5	4

Standard Form: 7,054

Word Form: Seven thousand, fifty-four

ⓒ

Thousands	Hundreds	Tens	Ones
1	3	0	7

Standard Form: 1,307

Word Form: One thousand, three hundred seven

ⓓ

Thousands	Hundreds	Tens	Ones
5	8	1	6

Standard Form: 5,816

Word Form: Five thousand, eight hundred sixteen

e

Thousands			Hundreds	Tens	Ones
Hundreds	Tens	Ones			
		6	7	5	2

Standard Form: 6,752

Word Form: Six thousand, seven hundred fifty-two

f

Thousands			Hundreds	Tens	Ones
Hundreds	Tens	Ones			
		4	9	2	4

Standard Form: 4,924

Word Form: Four thousand, nine hundred twenty-four

g

Thousands			Hundreds	Tens	Ones
Hundreds	Tens	Ones			
	4	0	7	1	8

Standard Form: 40,718

Word Form: Forty hundred, seven hundred eighteen

h

Thousands			Hundreds	Tens	Ones
Hundreds	Tens	Ones			
	2	9	1	0	4

Standard Form: 29,104

Word Form: Twenty-nine thousand, one hundred four

i

Thousands			Hundreds	Tens	Ones
Hundreds	Tens	Ones			
	3	0	0	0	8

Standard Form: 30,008

Word Form: Thirty thousand, eight

j

Thousands			Hundreds	Tens	Ones
Hundreds	Tens	Ones			
9	2	0	5	1	2

Standard Form: 920,512

Word Form: Nine hundred twenty thousand, five hundred twelve

k

Thousands			Hundreds	Tens	Ones
Hundreds	Tens	Ones			
2	7	5	1	1	2

Standard Form: 275,112

Word Form: Two hundred seventy-five thousand, one hundred twelve

l

Thousands			Hundreds	Tens	Ones
Hundreds	Tens	Ones			
6	5	0	4	7	5

Standard Form: 650,475

Word Form: Six hundred fifty thousand, four hundred seventy-five

2 Complete the following:

a

Thousands			Hundreds	Tens	Ones
Hundreds	Tens	Ones			
......	......	3	1	5	0

Standard Form: 3,150

Word Form: Three thousand, one hundred fifty

b

Thousands			Hundreds	Tens	Ones
Hundreds	Tens	Ones			
......	......	4	2	5	7

Standard Form: 4,257

Word Form: Four thousand, two hundred fifty-seven

c

Thousands			Hundreds	Tens	Ones
Hundreds	Tens	Ones			
......	8	0	0	7	6

Standard Form: 80,076

Word Form: Eighty thousand, seventy-six

d

Thousands			Hundreds	Tens	Ones
Hundreds	Tens	Ones			
......	3	5	9	1	6

Standard Form: 35,916

Word Form: Thirty-five thousand, nine hundred sixteen

e

Thousands			Hundreds	Tens	Ones
Hundreds	Tens	Ones			
1	0	5	0	1	5

Standard Form: 105,015

Word Form: One hundred five thousand, fifteen

f

Thousands			Hundreds	Tens	Ones
Hundreds	Tens	Ones			
8	2	5	4	0	6

Standard Form: 825,406

Word Form: Eight hundred twenty-five thousand, four hundred six

g

Thousands			Hundreds	Tens	Ones
Hundreds	Tens	Ones			
2	1	9	4	7	1

Standard Form: 219,471

Word Form: Two hundred nineteen thousand, four hundred seventy-one

h

Thousands			Hundreds	Tens	Ones
Hundreds	Tens	Ones			
9	0	9	9	9	0

Standard Form: 909,990

Word Form: Nine hundred, nine thousand, nine hundred ninety



3 Match:

a Fifty thousand, fifty five	50,505 1
b Fifty thousand, five hundred five	55,005 2
c Fifty thousand, five hundred fifty	50,055 3
d Fifty-five thousand, five	55,500 4
e Fifty-five thousand, fifty	50,550 5
f Fifty-five thousand, five hundred	55,050 6

4 Match:

a Two hundred thousand, two	200,200 1
b Two hundred thousand, twenty	200,002 2
c Two hundred thousand, two hundred	202,000 3
d Two hundred two thousand	200,020 4
e Two hundred twenty thousand	222,000 5
f Two hundred twenty-two thousand	220,000 6

5 Complete the following table:

	Standard Form	Word Form
a	45,125	Forty-five thousand, one hundred twenty-five
b	12,607	Twelve thousand, six hundred seven
c	405,168	Four hundred five thousand, one hundred sixty-eight
d	318,927	Three hundred eighteen thousand, nine hundred twenty-seven
e	26,578	Twenty-six thousand, five hundred seventy-eight.
f	13,015	Thirteen thousand and fifteen.
g	659,242	Six hundred fifty-nine thousand, two hundred forty-two.
h	987,651	Nine hundred eighty-seven thousand, six hundred fifty-one.



Second: The Place Value

1 Write the place value and value of the encircled digit:

	Number	Place Value	Value
a	(1)23,567	Hundred Thousands	100,000
b	4(7)2,235	Ten Thousands	70,000
c	10(2),380	Thousands	2,000
d	540,(0)89	Hundreds	0
e	902,0(0)3	Tens	0
f	589,36(8)	Ones	8
g	7(8)9,112	Ten Thousands	80,000
h	987,(6)33	Hundreds	600
i	752,36(8)	Ones	8
j	(9)12,456	Hundred Thousands	900,000
k	25(0),147	Thousands	0
l	398,1(1)2	Tens	10

2 Complete the following:

a) 20 Thousands = 20,000
b) 500,000 = 500 Thousands
c) 580 Hundreds = 58,000
d) 400,000 = 4,000 Hundreds
e) 28,300 Tens = 283,000
f) 60,000 = 6,000 Tens
g) 25,002 Ones = 25,002
h) 40,000 = 40,000 Ones
i) 105 Hundreds = 10,500
j) 60,000 = 600 Hundreds

3 Complete the following:

a) 5 Thousands = 50 Hundreds
b) 5 Thousands = 500 Tens
c) 5 Thousands = 5,000 Ones
d) 50 Thousands = 500 Hundreds
e) 50 Thousands = 5,000 Tens
f) 50 Thousands = 50,000 Ones
g) 500 Thousands = 5,000 Hundreds
h) 500 Thousands = 50,000 Tens
i) 70 Hundreds = 7 Thousands
j) 70 Hundreds = 700 Tens
k) 500 Hundreds = 50 Thousands
l) 600 Hundreds = 6,000 Tens
m) 9 Hundreds = 90 Tens
n) 50,000 Tens = 500 Thousands
o) 90,000 Tens = 9,000 Hundreds
p) 100 Tens = 1 Thousands

4 Write the following numbers in expanded form:

a) 75,825 = 70,000 + 5,000 + 800 + 20 + 5
b) 561,236 = 500,000 + 60,000 + 1,000 + 200 + 30 + 6
c) 23,458 = 20,000 + 3,000 + 400 + 50 + 8
d) 602,803 = 600,000 + 2,000 + 800 + 3
e) 80,028 = 80,000 + 20 + 8
f) 900,402 = 900,000 + 400 + 2
g) 602,000 = 600,000 + 2,000
h) 202,050 = 200,000 + 2,000 + 50

5 Complete:

a) 45,215 = 45 Thousands + 2 Hundreds + 1 Ten + 5 Ones
b) 272,654 = 272 Thousands + 6 Hundreds + 5 Tens + 4 Ones
c) 61,025 = 0 Hundreds + 5 Ones + 2 Tens + 61 Thousands

d 920,587 = 7 Ones + 5 Hundreds + 8 Tens + 920 Thousands

e 500,002 = 500 Thousands + 0 Hundreds + 0 Tens + 2 Ones

f 62,000 = 62 Thousands + 0 Hundreds + 0 Tens + 0 Ones

g 780,003 = 780 Thousands + 0 Hundreds + 0 Tens + 3 Ones

6 Complete the following:

a 7,000 + 900 + 50 + 7 = 7,957

b 50 + 800 + 9,000 + 5 = 9,855

c 7,000 + 2 + 40 = 7,042

d 400 + 90,000 + 6,000 + 70 + 1 = 96,471

e 50 + 4,000 + 200,000 + 90,000 + 7 + 200 = 294,257

f 40,000 + 900 = 40,900

g 600,000 + 10 + 7 = 600,017

h 900,000 + 70,000 = 970,000

i 600 + 800,000 = 800,600

7 Complete:

a 45,896 = 45 Thousands + 8 Hundreds + 9 Tens + 6 Ones

b 8,657 = 8 Thousands + 6 Hundreds + 5 Tens + 7 Ones

c 935,742 = 935 Thousands + 7 Hundreds + 4 Tens + 2 Ones

d 25,063 = 25 Thousands + 6 Tens + 3 Ones

e 56,087 = 8 Tens + 7 Ones + 56 Thousands

f 500,070 = 500 Thousands + 7 Tens

g 410,203 = 2 Hundreds + 410 Thousands + 3 Ones

Third: Comparing and Ordering Numbers Up to 999,999

1 Complete using (<, = or >):

a) 345,123 < 600,201

b) 788,250 < 788,520

c) 441,002 < 441,020

d) 99,999 < 100,010

e) 90,909 < 99,090

f) 5,628 > 5,268

g) 25,268 > 17,268

h) 36,159 = 36,159

i) 39,020 < 39,200

j) 6,302 < 60,020

k) 12,000 > 10,200

l) 77,020 < 77,202

m) 200,000 + 20,000 + 3,000 + 200 + 10 + 7 = 223,217

n) 5 + 20 + 300 + 7,000 + 60,000 > 52,376

o) 255 Thousands + 2 Hundreds + 7 Ones = 255,207

p) 5 Tens + 7 Thousands + 4 Hundreds > 7,405

q) Twenty thousand and twenty > 2,020

r) Thirteen thousand, one hundred and three > 13,013

s) The **largest** 5-digit number > 99,099

t) The **smallest** 6-different-digit number < 123,456

u) 500,000 + 50,000 + 500 + 5 < 555,005

v) 3,600 + 36 < 360,036

2 Arrange each group of the following numbers in an ascending order and in a descending order:

ⓐ 45,368 , 21,789 , 98,102 , 78,023 , 62,039

1 Ascending Order:

21,789 , 45,368 , 62,034 , 78,023 , 98,102

2 Descending Order:

98,102 , 78,023 , 62,034 , 45,368 , 21,789

ⓑ 32,023 , 98,123 , 75,023 , 54,987 , 20,368

1 Ascending Order:

20,368 , 32,023 , 54,987 , 75,023 , 98,123

2 Descending Order:

98,123 , 75,023 , 54,287 , 32,023 , 20,368

ⓒ 500,368 , 500,638 , 500,863 , 500,386 , 500,683

1 Ascending Order:

500,368 , 500,386 , 500,638 , 500,683 , 500,863

2 Descending Order:

500,863 , 500,683 , 500,638 , 500,386 , 500,368

ⓓ 700,064 , 700,406 , 700,604 , 700,046 , 700,460

1 Ascending Order:

700,046 , 700,064 , 700,406 , 700,460 , 700,604

2 Descending Order:

700,604 , 700,460 , 700,406 , 700,064 , 700,046

ⓔ 5,023 , 9,120 , 5,320 , 9,012 , 7,002

1 Ascending Order:

5,023 , 5,320 , 7,002 , 9,012 , 9,120

2 Descending Order:

9,120 , 9,012 , 7,002 , 5,320 , 5,023

ⓕ 166,451 , 166,154 , 166,541 , 166,415 , 166,145

1 Ascending Order:

166,145 , 166,154 , 166,415 , 166,451 , 166,541

2 Descending Order:

166,541 , 166,451 , 166,415 , 166,154 , 166,145

3 Complete the following:

ⓐ The **greatest** 4-digit number is 9,999 .

ⓑ The **greatest** 5-digit number is 99,999 .

ⓒ The **greatest** 6-digit number is 999,999 .

ⓓ The **smallest** 4-digit number is 1,000 .

ⓔ The **smallest** 5-digit number is 10,000 .

ⓕ The **smallest** 6-digit number is 100,000 .

ⓖ The **greatest** 4- different-digit number is 9,876 .

ⓗ The **greatest** 5- different-digit number is 98,765 .

ⓘ The **greatest** 6- different-digit number is 987,654 .

ⓙ The **smallest** 4- different-digit number is 1,023 .

ⓚ The **smallest** 5- different-digit number is 10,234 .

ⓛ The **smallest** 6- different-digit number is 102,345 .

ⓜ The **smallest** 4- same-digit number is 1,111 .

ⓝ The **smallest** 6- same-digit number is 111,111 .

4 Write the greatest and the smallest numbers that can be formed from each of the following sets of digits:

Digits	Greatest Number	Smallest Number
a 4,3,9,7,5	97,543	34,579
b 6,7,3,2,4	76,432	23,467
c 5,6,1,3,8,9	986,531	135,689
d 9,8,4,5,2,3	985,432	234,589
e 6,0,7,9,2	97,620	20,679
f 8,7,0,6,3	87,630	30,678
g 6,2,0,7,8,5	876,520	205,678
h 7,0,6,2,8,1	876,210	102,678

5 Write the greatest and the smallest 5-digit numbers that can be formed from each of the following sets of digits:

Digits	Greatest Number	Smallest Number
a 4 and 5	55,554	44,445
b 7,3,4	77,743	33,347
c 1,3,7,9	99,731	11,379

6 Write the greatest and the smallest 6-digit numbers that can be formed from each of the following sets of digits:

Digits	Greatest Number	Smallest Number
a 9 and 3	999,993	333,339
b 5,4,7	777,754	444,457
c 2,9,8,1	999,821	111,289
d 8,4,2,7,3	887,432	223,478

7 Complete the following table:

	The Number Before	The Number	The Number After
a	325,364	325,365	325,366
b	145,119	145,120	145,121
c	49,999	50,000	50,001
d	636,699	636,700	636,701
e	699,998	699,999	700,000
f	85,099	85,100	85,101
g	9,999	10,000	10,001
h	9,998	9,999	10,000
i	998	999	1,000

8 Complete:

a. The number that comes just after 366,258 is 366,259.

b. The number that comes just before 155,000 is 154,999.

c. 16,000 comes just after 15,999.

d. 5,236 comes just before 5,237.

e. The number 7,124 comes just after 7,123.

f. The number 133,021 comes just before 133,022.

Accumulative Assessment 5 up to Lesson 4

Chapter 2

First: Choose the correct answer:

a 5 Ones + 3 Hundreds + 74 Thousands + 8 Tens = ...
(53,748 or 74,385 or 74,358)

b Seventy-five thousand and seventy-five = ...
(7,575 or 75,750 or 75,075)

c 500 + 0 + 0 + 3 = ... (50,003 or 503 or 53)

d 1,000 Hundreds = ... (100,000 or 1,000 or 10)

e Eighty-five thousand and eight = ... (85,080 or 8,508 or 85,008)

Second: Complete the following:

a The **place value** of 7 in 662,078 is Tens .

b The number 501,000 comes just **after** 500,999.

c 25,012 , 25,022 , 25,032 , 25,042 , 25,052 , 25,062 .

d The **largest** 5-same-digit number is 99,999 .

e 2,000 more than 21,900 is 23,900 .

Third: Answer the following:

a Arrange the following numbers in an **ascending** order:

45,603 , 45,036 , 45,306 , 45,630 , 45,063

- Ascending order: 45,036 , 45,063 , 45,306 , 45,603 , 45,630
- Descending order: 45,630 , 45,603 , 45,306 , 45,063 , 45,036

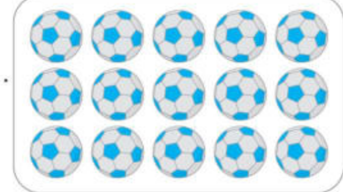
b Complete using (< , = or >):

1. 5,023 < 62,009
2. 78,569 < 79,003
3. 20 Thousands + 8 Hundreds < 28,000
4. 60 + 600 < Sixty thousand and sixty.

Lesson 5 Arrays

1 Look at each array, then complete:

ⓐ The number of rows is ...3... .



– The number of balls in each row is ...5... .

– Total number of balls is

...5... + ...5... + ...5... = ...15... balls.

– The number of columns is ...5... .

– The number of balls in each column is ...3... .

– Total number of balls is ...3... + ...3... + ...3... + ...3... + ...3... = ...15... balls.

...3... columns of ...5... or ...5... columns of ...3...

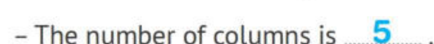
ⓑ The number of rows is ...2... .



– The number of dogs in each row is ...5... .

– Total number of dogs is

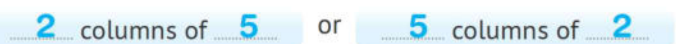
...5... + ...5... = ...10... dogs.



– The number of columns is ...5... .

– The number of dogs in each column is ...2... .

– Total number of dogs is ...2... + ...2... + ...2... + ...2... + ...2... = ...10... dogs.

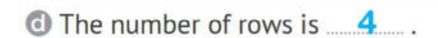


...2... columns of ...5... or ...5... columns of ...2...

c The number of rows is 4 .

- The number of cars in each row is 2 .
- Total number of cars is 2 + 2 + 2 + 2 = 8 cars.
- The number of columns is 2 .
- The number of cars in each column is 2 .
- Total number of cars is 4 + 4 = 8 cars.

4 columns of 2 or 2 columns of 4



d The number of rows is 4 .

- The number of apples in each row is 6 .
- Total number of apples is

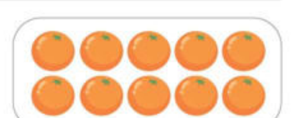
6 + 6 + 6 + 6 = 24 apples.

- The number of columns is 6 .
- The number of apples in each column is 4 .
- Total number of apples is 4 + 4 + 4 + 4 + 4 + 4 = 24 apples.

4 columns of 6 or 6 columns of 4

---

e The number of rows is 2 .



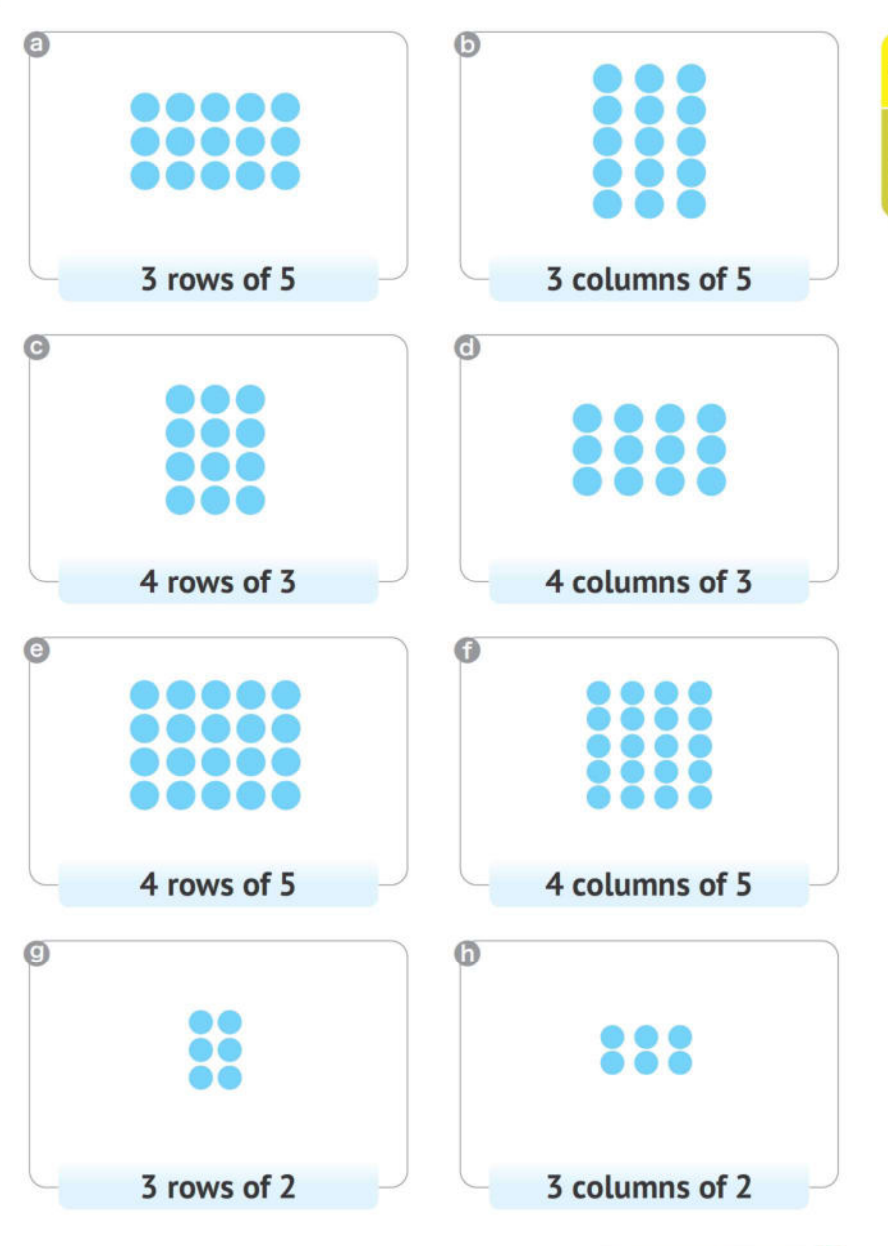
- The number of oranges in each row is 5 .
- Total number of oranges is

5 + 5 = 10 oranges.

- The number of columns is 5 .
- The number of oranges in each column is 2 .
- Total number of oranges is 2 + 2 + 2 + 2 + 2 = 10 oranges.

2 columns of 5 or 5 columns of 2

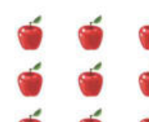
2 Create an array:





3 Find the total number of elements in each array:





The total number is: 6 + 6 + 6

= 18





The total number is: 7 + 7 + 7

= 21





The total number is: 4 + 4 + 4 + 4 + 4

= 20

(d)



The total number is: 3 + 3 + 3 + 3 + 3

= 15

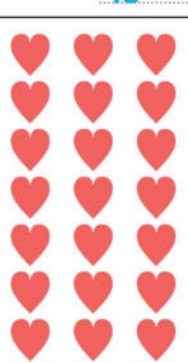




The total number is: 9 + 9

= 18

(f)



The total number is: 3 + 3 + 3 + 3 + 3 + 3 + 3 + 3

= 24

(g)

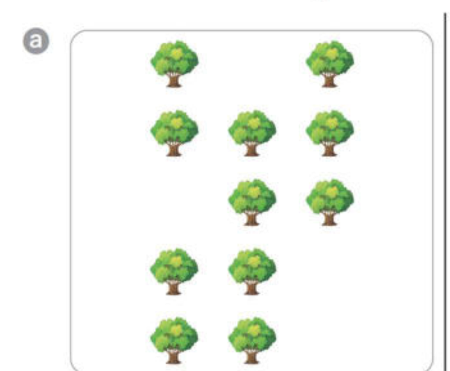


The total number is: 7 + 7

= 14

4 **complete the missing array, then find the total number of elements in the array:**

a

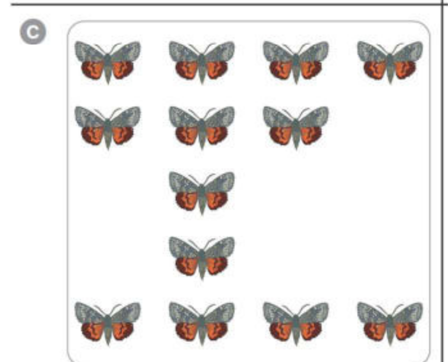


The total number is: 3 + 3 + 3 + 3 + 3
= 15

b

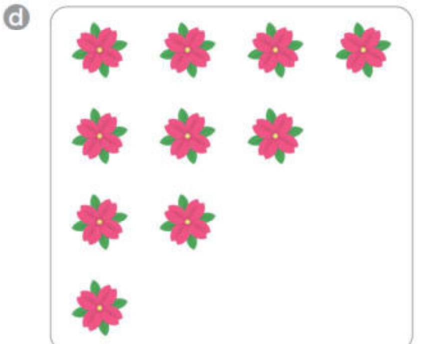
The total number is: 4 + 4 + 4 + 4
= 16

c



The total number is: 4 + 4 + 4 + 4 + 4
= 20

d



The total number is: 4 + 4 + 4 + 4
= 16

Accumulative Assessment 6 up to Lesson 5

Chapter 2

First: Choose the correct answer:

a) Ninety thousand, ninety nine (in standard form) = ... (900,990 or 90,990 or 90,099)

b) The **greatest** 5-digit number is .... (900,000 or 98,765 or 99,999)

c) 700 + 0 + 0 + 7 = ... (700,007 or 70,007 or 707)

d) 500 Hundreds = ... Thousands (50 or 500 or 5,000)

e) 75,005 > .... (740,004 or 75,040 or 75,000)

Second: Complete the following:

a) The **place value** of 6 in 5**6**,203 is Thousands

b) 9 Ones + 6 Hundreds + 5 Tens + 23 Thousands = 23,659

c) 100 , 200 , 300 , 400 , 500 , 600 (in the same pattern)

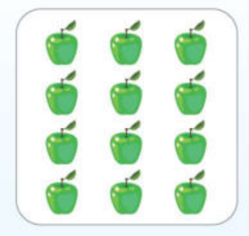
d) The **greatest** number formed from the digits 5 , 7 , 0 , 2, and 8 is 87,520. (Without repeating)

e) The number that comes just **after** 25,999 is 26,000

Third: Answer the following:

a) **Look at the following array, then complete:**

- The number of rows is 4 .
- The number of apples in each row is 3 .
- Total number of apples = 3 + 3 + 3 + 3 = 12 apples.
- 4 rows of 3 apples.



b) **Arrange the following numbers in an ascending order:**

75,020 , 75,202 , 75,002 , 75,220 , 75,200

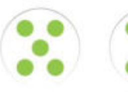
- 75,002 , 75,020 , 75,200 , 75,202 , 75,220

Lesson 6 Multiplication

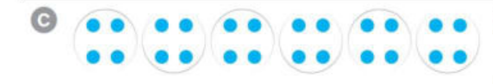
1 Complete:

ⓐ   

Repeated addition:
6 + 6 + 6 = 18
Multiplication: 3 × 6 = 18

ⓑ   

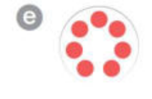
Repeated addition:
5 + 5 + 5 + 5 = 20
Multiplication: 4 × 5 = 20

ⓒ 

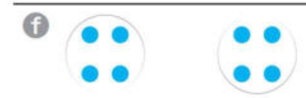
Repeated addition:
4 + 4 + 4 + 4 + 4 + 4 = 24
Multiplication: 6 × 4 = 24

ⓓ 

Repeated addition:
2 + 2 + 2 + 2 = 8
Multiplication: 4 × 2 = 8

ⓔ   

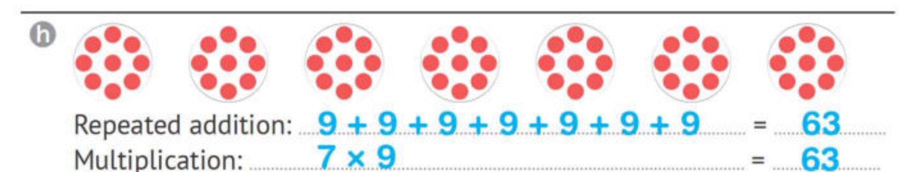
Repeated addition:
7 + 7 + 7 = 21
Multiplication: 3 × 7 = 21

ⓕ 

Repeated addition:
4 + 4 = 8
Multiplication: 2 × 4 = 8

ⓖ 

Repeated addition: 3 + 3 + 3 + 3 + 3 + 3 + 3 + 3 + 3 + 3 = 27
Multiplication: 9 × 3 = 27

ⓗ 

Repeated addition: 9 + 9 + 9 + 9 + 9 + 9 + 9 = 63
Multiplication: 7 × 9 = 63

2 Complete:

a) 5 + 5 + 5 + 5 = 20 So, 4 × 5 = 20, and 5 × 4 = 20.

b) 4 + 4 + 4 + 4 + 4 = 20 So, 5 × 4 = 20, and 4 × 5 = 20.

c) 6 + 6 = 12 So, 2 × 6 = 12, and 6 × 2 = 12.

d) 2 + 2 + 2 + 2 + 2 + 2 = 12

So, 6 × 2 = 12, and 2 × 6 = 12.

e) 3 + 3 + 3 + 3 + 3 = 15 So, 5 × 3 = 15, and 3 × 5 = 15.

f) 9 + 9 + 9 + 9 = 36 So, 4 × 9 = 36, and 9 × 4 = 36.

g) 1 + 1 + 1 + 1 + 1 = 5 So, 5 × 1 = 5, and 1 × 5 = 5.

h) 7 + 7 = 14 So, 2 × 7 = 14, and 7 × 2 = 14.

i) 8 + 8 + 8 = 24 So, 3 × 8 = 24, and 8 × 3 = 24.

j) 6 + 6 + 6 + 6 + 6 = 30

So, 5 × 6 = 30, and 6 × 5 = 30.

k) 5 × 4 = 4 + 4 + 4 + 4 + 4

l) 6 × 2 = 2 + 2 + 2 + 2 + 2 + 2

m) 8 × 3 = 8 + 8 + 8

n) 6 × 5 = 6 + 6 + 6 + 6 + 6

o) 6 × 5 = 5 + 5 + 5 + 5 + 5 + 5

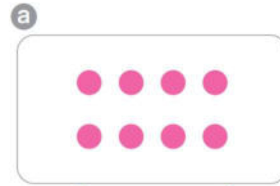
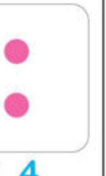
p) 4 × 7 = 4 + 4 + 4 + 4 + 4 + 4 + 4

q) 4 × 7 = 7 + 7 + 7 + 7

r) 5 × 5 = 5 + 5 + 5 + 5 + 5

3 Complete each of the following:

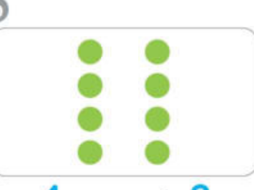
a

2 rows of 4

2 × 4 = 8

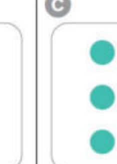
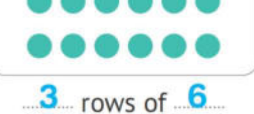
b



4 rows of 2

4 × 2 = 8

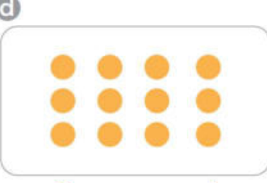
c

3 rows of 6

3 × 6 = 18

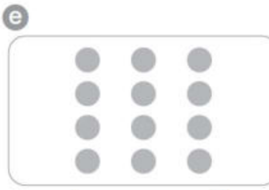
d



3 rows of 4

3 × 4 = 12

e



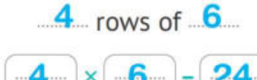
4 rows of 3



4 × 3 = 12

f





4 rows of 6

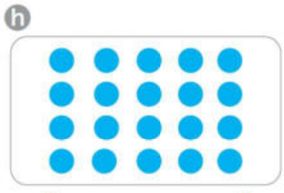
4 × 6 = 24

g

5 columns of 3

5 × 3 = 15

h

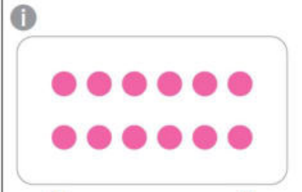


5 columns of 4



5 × 4 = 20

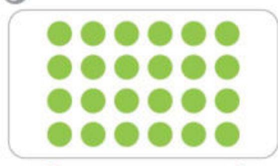
i



6 columns of 2

6 × 2 = 12

j

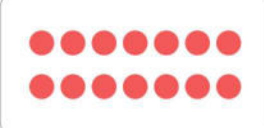


6 columns of 4



6 × 4 = 24

k

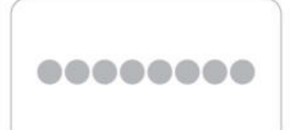


7 columns of 2



7 × 2 = 14

l



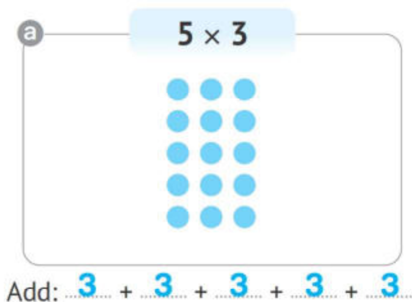
8 columns of 1

8 × 1 = 8



4 Draw an array that matches the multiplication, then use repeated addition to find the product of the multiplication:

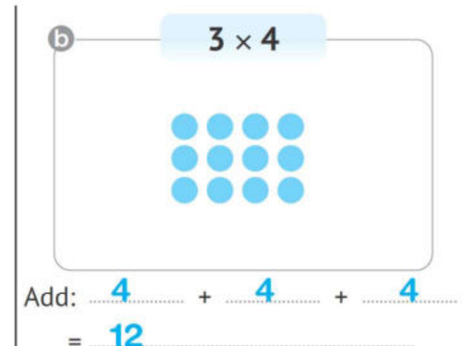
a 5×3



Add: 3 + 3 + 3 + 3 + 3

= 15

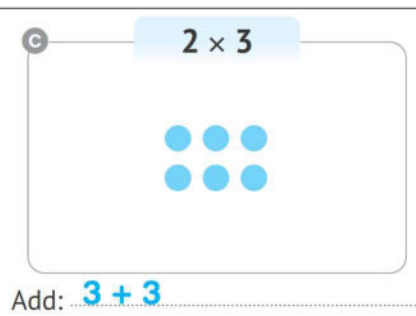
b 3×4



Add: 4 + 4 + 4

= 12

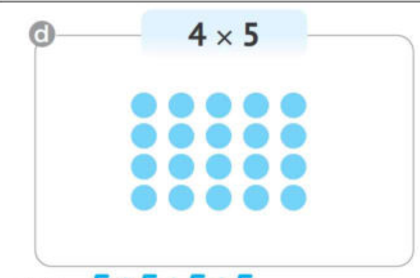
c 2×3





= 6

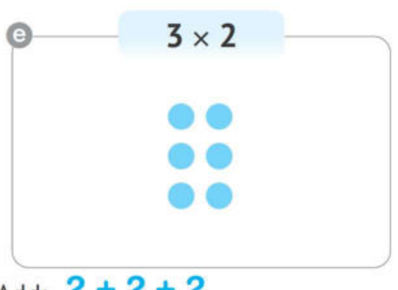
d 4×5



Add: 5+5+5+5

= 20

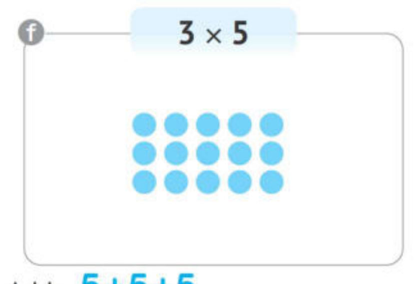
e 3×2



Add: 2 + 2 + 2

= 6

f 3×5



Add: 5+5+5

= 15

Accumulative Assessment 7 up to Lesson 6

Chapter 2

First: Choose the correct answer:

a The **value** of the digit 4 in 52**4**,368 is .... (4,000 or 40,000 or 400)

b 6 + 6 + 6 + 6 = ... (6 × 6 or 6 × 4 or 6 + 4)

c 500 + 0 + 0 + 5 = ... (500,005 or 50,005 or 505)

d 3 × 4 = ... (3 + 3 + 3 or 4 + 4 + 4 or 3 + 4)

e The number that comes just **before** 301,000 is ....
(300,000 or 301,001 or 300,999)

Second: Complete the following:

a 15 Tens + 120 Hundreds = 150 + 12,000 = 12,150

b 7 × 3 = 7 + 7 + 7

c 4 + 4 + 4 + 4 + 4 + 4 + 4 = 7 × 4 = 28

d The **smallest** 5-different-digit number is 10,234

e 2 , 4 , 6 , 8 , 10 , 12 , 14 , 16 , 18

Third: Answer the following:

a Arrange the following numbers in a **descending** order:

45,125 , 45,021 , 45,521 , 45,012 , 45,512

• 45,521 , 45,512 , 45,125 , 45,021 , 45,012

b Complete using (<, = or >):

1. 45,015 < 45,104
2. 40,000 + 500 + 3 < 45,300
3. 700 Hundreds < 700,000
4. 5 + 5 + 5 + 5 = 5 × 4

c Complete using the following figure:



• Repeated addition: 5 + 5 + 5 = 15

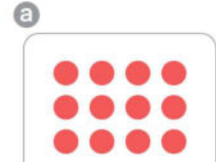
• Multiplication: 3 X 5 = 15



Lesson 7 Commutative Property in Multiplication

1 Complete using the Commutative Property of Multiplication:

a

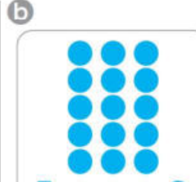


3 rows of 4 — 4 rows of 3

3 × 4 = 12 — 4 × 3 = 12

So, 3 × 4 = 4 × 3

b

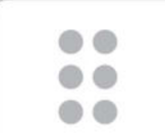


5 rows of 3 — 3 rows of 5

5 × 3 = 15 — 3 × 5 = 15

So, 5 × 3 = 3 × 5

c

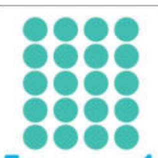


3 rows of 2 — 2 rows of 3

3 × 2 = 6 — 2 × 3 = 6

So, 3 × 2 = 2 × 3

d

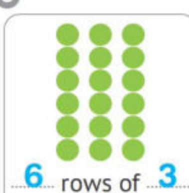


5 rows of 4 — 4 rows of 5

5 × 4 = 20 — 4 × 5 = 20

So, 5 × 4 = 4 × 5

e

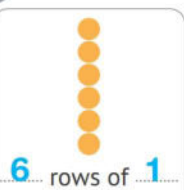


6 rows of 3 — 3 rows of 6

6 × 3 = 18 — 3 × 2 = 6

So, 6 × 3 = 3 × 2

f

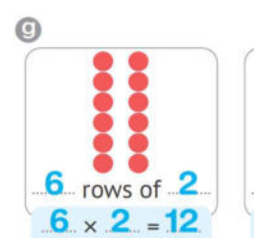


6 rows of 1 — 1 rows of 6

6 × 1 = 6 — 1 × 6 = 6

So, 6 × 1 = 1 × 6

g



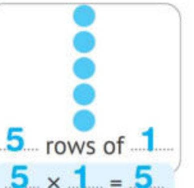


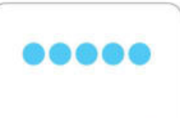
6 rows of 2 | 2 rows of 6

6 × 2 = 12 | 2 × 6 = 12

So, 6 × 2 = 2 × 6

h



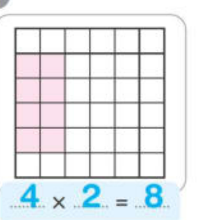


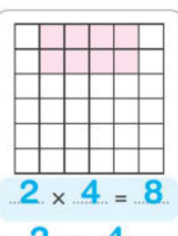
5 rows of 1 | 1 rows of 5

5 × 1 = 5 | 1 × 5 = 5

So, 5 × 1 = 1 × 5

i

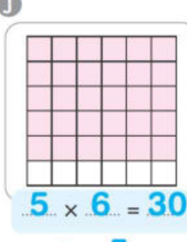


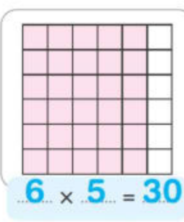


4 × 2 = 8 | 2 × 4 = 8

So, 4 × 2 = 2 × 4

j

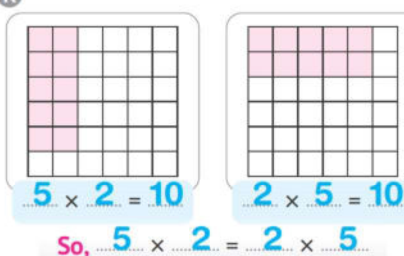




5 × 6 = 30 | 6 × 5 = 30

So, 5 × 6 = 6 × 5

k

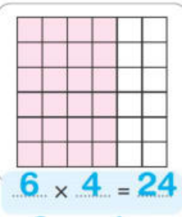


5 × 2 = 10 | 2 × 5 = 10

So, 5 × 2 = 2 × 5

l



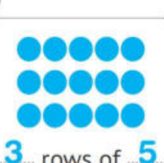


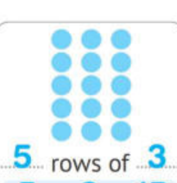
4 × 6 = 24 | 6 × 4 = 24

So, 4 × 6 = 6 × 4

2 **Write the multiplication sentence of each array, then draw the array that shows the Commutative Property:**

a



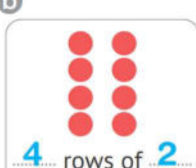


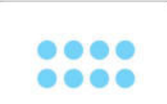
3 rows of 5 | 5 rows of 3

3 × 5 = 15 | 5 × 3 = 15

So, 3 × 5 = 5 × 3

b





4 rows of 2 | 2 rows of 4

4 × 2 = 8 | 2 × 4 = 8

So, 4 × 2 = 2 × 4

c



2 rows of 3

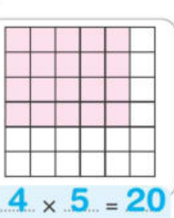
2 × 3 = 6

3 rows of 2

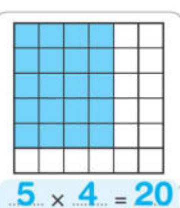
3 × 2 = 6

So, 2 × 3 = 3 × 2

d



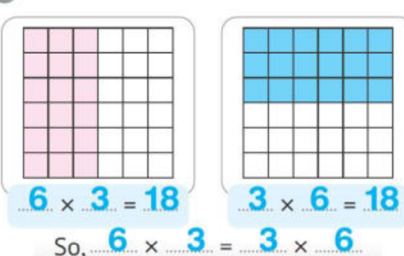
4 × 5 = 20



5 × 4 = 20

So, 4 × 5 = 5 × 4

e

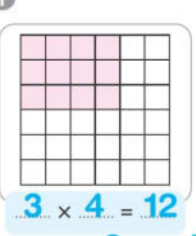


6 × 3 = 18

3 × 6 = 18

So, 6 × 3 = 3 × 6

f



3 × 4 = 12

4 × 3 = 12

So, 3 × 4 = 4 × 3

3 Complete the following:

a) 4 × 8 = 8 × 4

b) 6 × 3 = 3 × 6

c) 9 × 6 = 6 × 9

d) 2 × 7 = 7 × 2

e) 6 × 5 = 5 × 6

f) 1 × 5 = 5 × 1

g) 2 × 8 = 8 × 2

h) 3 × 4 = 4 × 3

i) If 2 + 2 + 2 + 2 + 2 + 2 + 2 = 14 , then 7 × 2 = 14 .

And if 7 + 7 = 14 , then 2 × 7 = 14 .

So, 7 × 2 = 2 × 7 .

j) If 4 + 4 + 4 + 4 + 4 + 4 = 24 , then 6 × 4 = 24 .

And if 6 + 6 + 6 + 6 = 24 , then 4 × 6 = 24 .

So, 6 × 4 = 4 × 6 .

k) If 3 + 3 + 3 + 3 + 3 = 15 , then 5 × 3 = 15 .

And if 5 + 5 + 5 = 15 , then 3 × 5 = 15 .

So, 5 × 3 = 3 × 5 .

Accumulative Assessment 8 up to Lesson 7

Chapter 2

First: Choose the correct answer:

a) Nineteen thousand, nine hundred and nine = ...
(19,909 or 90,909 or 19,990)

b) 6000 + 60 = ...
(6,060 or 6,006 or 600,060)

c) 7 + 7 + 7 + 7 + 7 = ...
(7 × 7 or 7 × 5 or 7 + 5)

d) 8 × 2 = ...
(2 + 2 or 4 + 4 + 4 + 4 or 8 × 8)

e) The **value** of 8 in 30**8**,964 is ....
(800,000 or 80,000 or 8,000)

Second: Complete the following:

a) ■ ▲ , ■ ▲ , ■ ▲ , ■ ▲ , ■ ▲

b) 6 × ...5... = 5 + 5 + 5 + 5 + 5 + 5

c) 7 × 6 = ...6... × 7

d) The number 57,000 comes just **after** 56,999.

e) 700 Thousands + 2 Hundreds + 108 Tens = 700,000 + 200 + 1,080 = 701,280

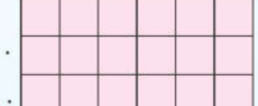
Third: Answer the following:

a) Arrange the following numbers in an **ascending** order:

70,050 , 75,005 , 75,500 , 75,505 , 75,055

• 70,050 , 75,005 , 75,055 , 75,500 , 75,505

b) The number of columns is ...6... .



The number of squares in each column is ...3... .

Total number of squares is ...6... × ...3... = ...18... .

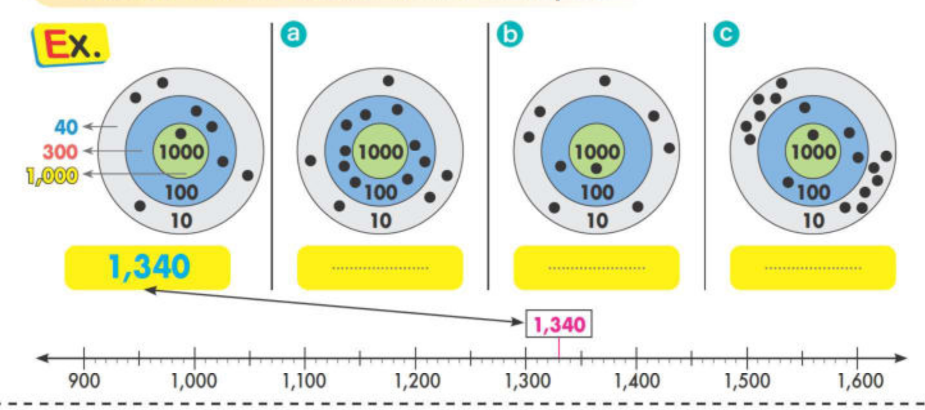
c) The number of rows is ...2... .

The number of squares in each row is ...6... .

Total number of squares is ...2... × ...6... = ...12... .

PUZZLE

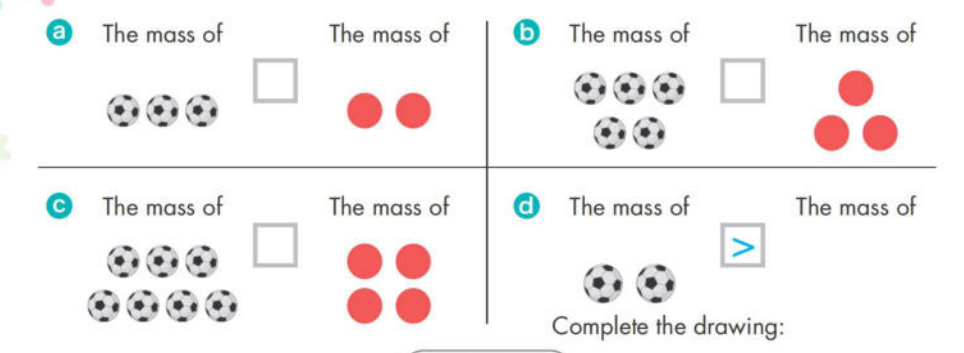
1 Write the number and match it to the suitable place on the number line as shown in the example:



A football weights 3 kg.

A cricket ball weights 5 kg.

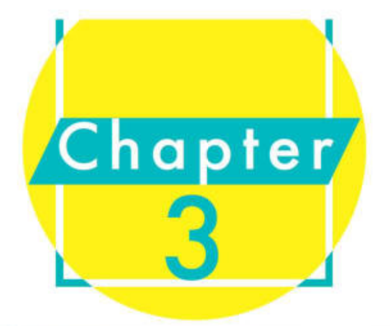
2 Measure how heavy the balls are, then complete using (<, >, =):



Answers

1 a 950 b 1,170 c 1,520

2 a < b = c > d



Lessons 1&2 Word Problems and Applications on Multiplication

1 **Use the strategy you prefer to solve the following story problems:**

ⓐ There are 9 apples in each basket.
How many apples are there in 6 baskets?










6 X 9 = 54 apples .

ⓑ Eman has 2 boxes of oranges.
Each box contains 5 oranges.
How many oranges does Eman have?



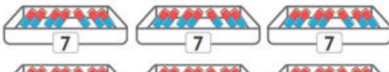




2 X 5 = 10 oranges .

ⓒ There are 7 erasers in each box.
How many erasers are there in 9 boxes?









9 X 7 = 63 erasers .



Work Area

ⓓ Each peanut container costs 5LE.

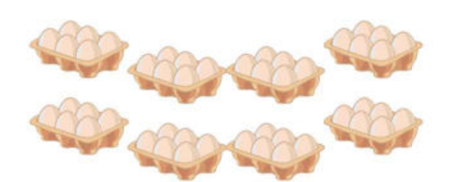
How much do 7 peanut containers cost?



7 X 5 = 35 LE .

ⓔ Ahmed went to the store 8 times last month. He buys 6 eggs each time he goes to the store.

How many eggs did Ahmed buy last month?

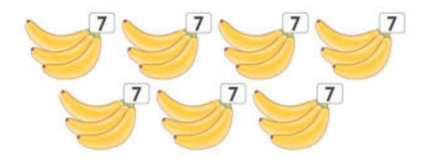


8 X 6 = 48 eggs .

ⓕ Each child has 7 bananas.

If there are 7 children,

how many bananas are there in total?



7 X 7 = 49 bananas .

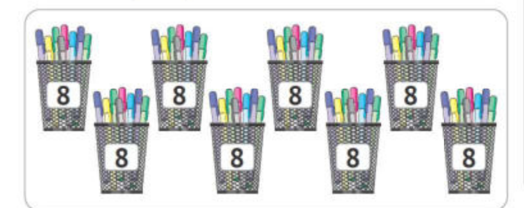


Work Area

ⓖ Each child has **8** crayons.

If there are **8** children,

how many crayons are there in total?



8 X 8 = 64 crayons .

ⓗ Each box of cookies costs **6**LE.

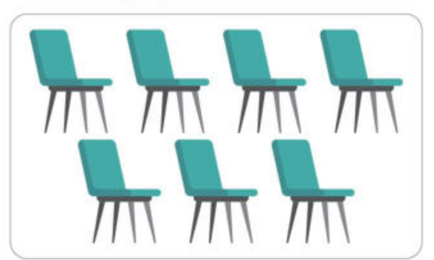
How much do **5** boxes cost?

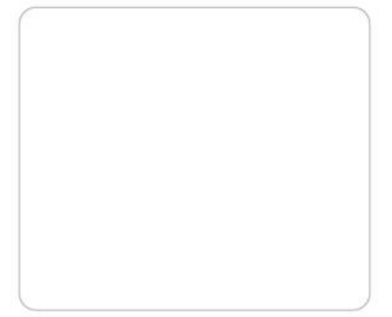


5 X 6 = 30 .

ⓘ Each chair has **4** legs.

How many legs do **7** chairs have?



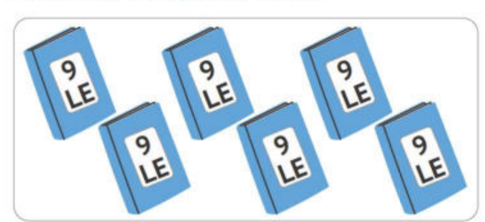


7 X 4 = 28 legs .



j Each book costs 9LE.

How much do 6 books cost?



Work Area

6 X 9 = 54 LE .

2 Write a multiplication story for each multiplication sentence, then solve it.

a 5×6

Nada bought 5 books for LE 6 each
What is the price of all books?
5 X 6 = 30 LE

b 4×3

Ali bought 4 pens for LE 3 each
What is the price of all pens?
4 X 3 = 12 LE

c 5×4

Sara bought 5 bags for LE 4 each
What is the price of all bags?
5 X 4 = 20 LE

d 3×6

Samir bought 3 balls for LE 6 each
What is the price of all balls?
3 X 6 = 18 LE

Accumulative Assessment 9 up to Lesson 2

Chapter 3

First: Choose the correct answer:

a) 8 + 8 + 8 + 8 + 8 + 8 + 8 = ... (7 × 8 or 8 + 7 or 8 × 8)

b) 6 + 6 + 6 + 6 + 6 ☐ 10 + 10 + 10 (< or = or >)

c) The **smallest** 5-digit number is .... (10,000 or 12,345 or 10,234)

d) 10,000 + 55,000 + 1,000 = ... (65,100 or 155,100 or 66,000)

e) The number 63,000 comes just **after** ....

(63,001 or 62,999 or 63,999)

Second: Complete the following:

a) 9 + 9 + 9 + 9 = **4** × **9**

b) 370,037 = 37 + **370,000**

c) The **place value** of 6 in 98,**6**25 is **Hundreds**

d) 75 Thousands + 50 Tens + 12 Ones = **75,512**

e) 60 , 54 , 48 , 42 , 36 **30** , **24** , **18** , **12**

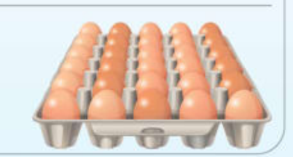
Third: Answer the following:

a) Arrange the following numbers in an **ascending** order:

45,450 , 45,045 , 45,504 , 45,054 , 45,405

- **45,045** , **45,054** , **45,405** , **45,450** , **45,504**

b) How many eggs are there in the opposite carton?



- **6 X 5 = 30 eggs** .

Lessons 3&4 Multiples

Multiples of 2 and 3

1 Complete:

a	b	c	d
2 × 0 = 0	2 × 1 = 2	3 × 0 = 0	3 × 1 = 3
2 × 1 = 2	2 × 3 = 6	3 × 1 = 3	3 × 3 = 9
2 × 2 = 4	2 × 5 = 10	3 × 2 = 6	3 × 5 = 15
2 × 3 = 6	2 × 7 = 14	3 × 3 = 9	3 × 7 = 21
2 × 4 = 8	2 × 9 = 18	3 × 4 = 12	3 × 9 = 27
2 × 5 = 10	2 × 10 = 20	3 × 5 = 15	3 × 10 = 30
2 × 6 = 12	2 × 8 = 16	3 × 6 = 18	3 × 8 = 24
2 × 7 = 14	2 × 6 = 12	3 × 7 = 21	3 × 6 = 18
2 × 8 = 16	2 × 4 = 8	3 × 8 = 24	3 × 4 = 12
2 × 9 = 18	2 × 2 = 4	3 × 9 = 27	3 × 2 = 6
2 × 10 = 20	2 × 0 = 0	3 × 10 = 30	3 × 0 = 0

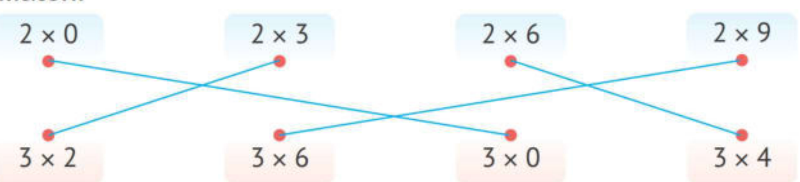
2 Complete:

a	b	c	d
2 × 1 = 2	2 × 0 = 0	3 × 1 = 3	3 × 0 = 0
2 × 10 = 20	2 × 4 = 8	3 × 7 = 21	3 × 3 = 9
2 × 2 = 4	2 × 8 = 16	3 × 2 = 6	3 × 6 = 18
2 × 9 = 18	2 × 1 = 2	3 × 10 = 30	3 × 9 = 27
2 × 3 = 6	2 × 5 = 10	3 × 3 = 9	3 × 1 = 3
2 × 8 = 16	2 × 9 = 18	3 × 9 = 27	3 × 4 = 12
2 × 4 = 8	2 × 2 = 4	3 × 4 = 12	3 × 7 = 21
2 × 7 = 14	2 × 6 = 12	3 × 8 = 24	3 × 10 = 30
2 × 5 = 10	2 × 10 = 20	3 × 5 = 15	3 × 2 = 6
2 × 0 = 0	2 × 3 = 6	3 × 0 = 0	3 × 5 = 15
2 × 6 = 12	2 × 7 = 14	3 × 6 = 18	3 × 8 = 24

3 **Complete:**

• 2 × 5 = 10	• 2 × 4 = 8	• 2 × 3 = 6	• 2 × 2 = 4	• 2 × 1 = 2
• 3 × 10 = 30	• 3 × 9 = 27	• 3 × 8 = 24	• 3 × 7 = 21	• 3 × 6 = 18
• 2 × 0 = 0	• 2 × 6 = 12	• 2 × 7 = 14	• 2 × 8 = 16	• 2 × 9 = 18
• 3 × 5 = 15	• 3 × 4 = 12	• 3 × 3 = 9	• 3 × 2 = 6	• 3 × 1 = 3

4 **Match:**



5 **Complete:**

- a) 5 + 5 = 2 × 5 = 10
- b) 6 + 6 = 2 × 6 = 12
- c) 8 + 8 = 2 × 8 = 16
- d) 3 + 3 = 2 × 3 = 6
- e) 4 + 4 + 4 = 3 × 4 = 12
- f) 7 + 7 + 7 = 3 × 7 = 21
- g) 9 + 9 + 9 = 3 × 9 = 27
- h) 2 + 2 + 2 = 3 × 2 = 6



6 Use the 120 Chart to find:

ⓐ List the first 20 multiples of 2:

2 , 4 , 6 , 8 , 10 , 12 , 14 , 16 , 18 , 20

22 , 24 , 26 , 28 , 30 , 32 , 34 , 36 , 38 , 40

ⓑ List the first 20 multiples of 3:

3 , 6 , 9 , 12 , 15 , 18 , 21 , 24 , 27 , 30

33 , 36 , 39 , 42 , 45 , 48 , 51 , 54 , 57 , 60

ⓒ List the common multiples of 2 and 3, up to 50:

6, 12, 18, 24, 30, 36, 42, 48

7 Choose the correct answer:

ⓐ $3 + 3 + 3 + 3 =$ .... (3×3 or 4×4 or 2×6)

ⓑ $6 + 6 =$ .... (6×6 or 3×4 or 2×2)

ⓒ $5 + 5 + 5 + 5 =$ .... (5×4 or $5 + 4$ or 5×5)

ⓓ $8 + 8 + 8 =$ .... ($3 + 8$ or $12 + 12$ or 8×8)

ⓔ $4 \times 4 =$ .... ($8 + 8$ or 4×6 or 6×6)

ⓕ $4 + 6 =$ .... ($2 + 5$ or 10×2 or 2×5)

ⓖ $4 \times 2 =$ .... (4×4 or $4 + 4$ or $2 + 2$)

ⓗ $9 + 9 =$ .... ($3 \times 3 \times 3$ or $6 + 6$ or 6×3)

Multiples of 4 and 5

1 Complete:

a	b	c	d
4 × 0 = 0	4 × 1 = 4	5 × 0 = 0	5 × 1 = 5
4 × 1 = 4	4 × 3 = 12	5 × 1 = 5	5 × 3 = 15
4 × 2 = 8	4 × 5 = 20	5 × 2 = 10	5 × 5 = 25
4 × 3 = 12	4 × 7 = 28	5 × 3 = 15	5 × 7 = 35
4 × 4 = 16	4 × 9 = 36	5 × 4 = 20	5 × 9 = 45
4 × 5 = 20	4 × 10 = 40	5 × 5 = 25	5 × 10 = 50
4 × 6 = 24	4 × 8 = 32	5 × 6 = 30	5 × 8 = 40
4 × 7 = 28	4 × 6 = 24	5 × 7 = 35	5 × 6 = 30
4 × 8 = 32	4 × 4 = 16	5 × 8 = 40	5 × 4 = 20
4 × 9 = 36	4 × 2 = 8	5 × 9 = 45	5 × 2 = 10
4 × 10 = 40	4 × 0 = 0	5 × 10 = 50	5 × 0 = 0

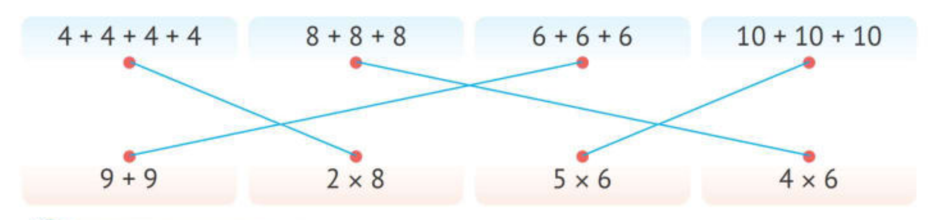
2 Complete:

a	b	c	d
4 × 1 = 4	4 × 0 = 0	5 × 1 = 5	5 × 0 = 0
4 × 5 = 20	4 × 2 = 8	5 × 3 = 15	5 × 1 = 5
4 × 0 = 0	4 × 4 = 16	5 × 5 = 25	5 × 2 = 10
4 × 7 = 28	4 × 6 = 24	5 × 7 = 35	5 × 3 = 15
4 × 9 = 36	4 × 8 = 32	5 × 9 = 45	5 × 4 = 20
4 × 4 = 16	4 × 10 = 40	5 × 0 = 0	5 × 5 = 25
4 × 2 = 8	4 × 1 = 4	5 × 2 = 10	5 × 6 = 30
4 × 6 = 24	4 × 3 = 12	5 × 4 = 20	5 × 7 = 35
4 × 10 = 40	4 × 5 = 20	5 × 6 = 30	5 × 8 = 40
4 × 8 = 32	4 × 7 = 28	5 × 8 = 40	5 × 9 = 45
4 × 3 = 12	4 × 9 = 36	5 × 10 = 50	5 × 10 = 50

3 Complete:

• 5 × 5 = 25	• 5 × 4 = 20	• 5 × 3 = 15	• 5 × 2 = 10	• 5 × 1 = 5
• 4 × 10 = 40	• 4 × 9 = 36	• 4 × 8 = 32	• 4 × 7 = 28	• 4 × 6 = 24
• 5 × 0 = 0	• 5 × 6 = 30	• 5 × 7 = 35	• 5 × 8 = 40	• 5 × 9 = 45
• 4 × 5 = 20	• 4 × 4 = 16	• 4 × 3 = 12	• 4 × 2 = 8	• 4 × 1 = 4
• 30 × 1 = 30	• 4 × 9 = 36	• 4 × 5 = 20	• 4 × 5 = 20	• 5 × 7 = 35
• 5 × 3 = 15	• 10 × 4 = 40	• 5 × 9 = 45	• 7 × 4 = 28	• 0 × 5 = 0

4 Match:



5 Complete:

a) 4 + 4 + 4 + 4 + 4 = 5 × 4 = 20

b) 5 + 5 + 5 + 5 + 5 + 5 + 5 + 5 = 8 × 5 = 40

c) 5 × 6 = 10 + 10 + 10 = 30

d) 3 × 4 = 6 + 6 = 12

e) 8 + 8 + 8 + 8 + 8 = 4 × 10 = 40

f) 4 + 4 + 4 + 4 = 2 × 8 = 16

g) 5 × 4 = 2 × 10 = 20

h) 4 × 6 = 3 × 8 = 24

6 Use the 120 Chart to find:

a) List the first 20 multiples of 4:

4 , 8 , 12 , 16 , 20 , 24 , 28 , 32 , 36 , 40

44 , 48 , 52 , 56 , 60 , 64 , 68 , 72 , 76 , 80

b) List the first 20 multiples of 5:

5 , 10 , 15 , 20 , 25 , 30 , 35 , 40 , 45 , 50

55 , 60 , 65 , 70 , 75 , 80 , 85 , 90 , 95 , 100

c) List the common multiples of 4 and 5, up to 50:

20, 40

d) List the common multiples of 2, 3 and 4, up to 40:

12, 24, 36

7 Choose the correct answer:

a) $5 + 5 + 5 + 5 =$ .... (5×5 or 4×4 or 5×4)

b) $8 + 8 + 8 =$ .... (8×3 or $8 + 3$ or 8×8)

c) $6 + 6 + 6 + 6 =$ .... (6×4 or 6×6 or $6 + 4$)

d) $8 \times 2 =$ .... ($8 + 2$ or $8 + 8$ or 8×8)

e) $9 + 9 =$ .... (9×9 or 9×2 or 6×3)

f) $6 + 6 =$ .... (6×2 or 6×6 or $6 + 2$)

g) $4 \times 4 =$ .... (8×2 or 1×6 or 3×5)

h) 2×5 ☐ 3×3 ($<$ or $=$ or $>$)

i) $5 + 5 + 5$ ☐ 4×4 ($<$ or $=$ or $>$)

j) $8 + 8 + 8$ ☐ 6×4 ($<$ or $=$ or $>$)

k) $9 + 9 + 9$ ☐ 7×4 ($<$ or $=$ or $>$)

l) $5 \times 6 = 3 \times$ .... (5 or 10 or 6)

m) $8 + 8 + 8 + 8 + 8 = 4 \times$ .... (8 or 5 or 10)

n) $6 + 6 + 6 + 6 = 3 \times$ .... (8 or 6 or 4)

Multiples of 6 and 7

1 Complete:

a	b	c	d
6 × 0 = 0	6 × 1 = 6	7 × 0 = 0	7 × 1 = 7
6 × 1 = 6	6 × 3 = 18	7 × 1 = 7	7 × 3 = 21
6 × 2 = 12	6 × 5 = 30	7 × 2 = 14	7 × 5 = 35
6 × 3 = 18	6 × 7 = 42	7 × 3 = 21	7 × 7 = 49
6 × 4 = 24	6 × 9 = 54	7 × 4 = 28	7 × 9 = 63
6 × 5 = 30	6 × 10 = 60	7 × 5 = 35	7 × 10 = 70
6 × 6 = 36	6 × 8 = 48	7 × 6 = 42	7 × 8 = 56
6 × 7 = 42	6 × 6 = 36	7 × 7 = 49	7 × 6 = 42
6 × 8 = 48	6 × 4 = 24	7 × 8 = 56	7 × 4 = 28
6 × 9 = 54	6 × 2 = 12	7 × 9 = 63	7 × 2 = 14
6 × 10 = 60	6 × 0 = 0	7 × 10 = 70	7 × 0 = 0

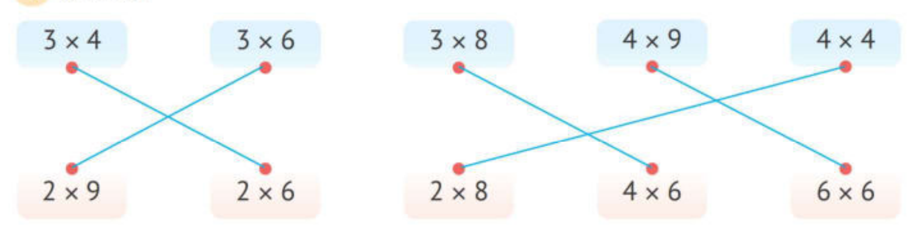
2 Complete:

a	b	c	d
6 × 1 = 6	7 × 2 = 14	1 × 6 = 6	0 × 1 = 0
6 × 3 = 18	7 × 4 = 28	3 × 6 = 18	1 × 7 = 7
6 × 5 = 30	7 × 6 = 42	5 × 6 = 30	2 × 6 = 12
6 × 7 = 42	7 × 8 = 56	7 × 6 = 42	3 × 7 = 21
6 × 9 = 54	7 × 10 = 70	9 × 6 = 54	4 × 6 = 24
6 × 10 = 60	7 × 1 = 7	10 × 7 = 70	5 × 7 = 35
6 × 0 = 0	7 × 3 = 21	8 × 7 = 56	6 × 6 = 36
6 × 2 = 12	7 × 5 = 35	6 × 7 = 42	7 × 7 = 49
6 × 4 = 24	7 × 7 = 49	4 × 7 = 28	8 × 6 = 48
6 × 6 = 36	7 × 9 = 63	2 × 7 = 14	9 × 7 = 63
6 × 8 = 48	7 × 0 = 0	0 × 1 = 0	10 × 6 = 60

3 Complete:

• 6 × 7 = 42	• 6 × 9 = 54	• 6 × 5 = 30	• 6 × 4 = 24	• 6 × 8 = 48
• 7 × 4 = 28	• 7 × 3 = 21	• 7 × 6 = 42	• 7 × 5 = 35	• 7 × 2 = 14
• 7 × 1 = 7	• 6 × 0 = 0	• 7 × 8 = 56	• 6 × 6 = 36	• 7 × 7 = 49
• 10 × 5 = 50	• 6 × 8 = 48	• 7 × 4 = 28	• 8 × 3 = 24	• 7 × 9 = 63
• 7 × 10 = 70	• 8 × 7 = 56	• 10 × 6 = 60	• 6 × 6 = 36	• 5 × 8 = 40
• 5 × 6 = 30	• 4 × 6 = 24	• 2 × 7 = 14	• 2 × 8 = 16	• 3 × 9 = 27

4 Match:



5 Complete:

a) 4 + 4 + 4 + 4 + 4 + 4 + 4 + 4 = 8 × 4 = 32

b) 5 + 5 + 5 + 5 + 5 + 5 + 5 = 7 × 5 = 35

c) 5 × 8 = 8 + 8 + 8 + 8 + 8 = 40

d) 4 × 4 = 8 + 8 = 16

e) 7 + 7 + 7 + 7 + 7 = 5 × 7 = 35

f) 4 + 4 + 4 + 4 = 2 × 8 = 16

g) 5 × 8 = 4 × 10 = 40

h) 6 × 6 = 4 × 9 = 36

6 Use the 120 Chart to find:

a) List the first 20 multiples of 6:

6, 12, 18, 24, 30, 36, 42, 48, 54, 60

66, 72, 78, 84, 90, 96, 102, 108, 114, 120

b) List the first 20 multiples of 7:

7, 14, 21, 28, 35, 42, 49, 56, 63, 70

77, 84, 91, 98, 105, 112, 119, 126, 133, 140

c) List the common multiples of 6 and 7, up to 100:

42, 84

d) List the common multiples of 3, 4 and 6, up to 60:

12, 24, 36, 48, 60

7 Choose the correct answer:

a) 5 + 5 + 5 + 5 + 5 + 5 = ... (**5 × 6** or 6 × 6 or 5 × 5)

b) 8 + 8 = ... (8 × 8 or 8 + 2 or **4 × 4**)

c) 6 + 6 + 6 + 6 = ... (3 × 6 or **3 × 8** or 6 + 4)

d) 8 × 2 = ... (8 + 2 or **8 + 8** or 8 × 8)

e) 9 + 9 + 9 + 9 + 9 + 9 = ... (9 × 9 or 9 + 6 or **6 × 9**)

f) 6 + 6 + 6 = ... (**9 × 2** or 6 × 6 or 6 + 3)

g) 4 × 5 = ... (**10 × 2** or 1 × 6 or 3 × 5)

h) 5 × 5 ☐ 3 × 8 (< or = or **>**)

i) 5 + 5 + 5 + 5 ☐ 3 × 7 (**<** or = or >)

j) 8 + 8 + 8 + 8 ☐ 9 × 4 (**<** or = or >)

k) 9 + 9 + 9 + 9 ☐ 9 × 4 (< or **=** or >)

l) 4 × 6 = 3 × .... (5 or **8** or 6)

m) 8 + 8 + 8 = 4 × .... (8 or **6** or 10)

n) 6 + 6 + 6 = 2 × .... (**9** or 6 or 4)

8 Complete in the same pattern:

a) 0 , 2 , 4 , 6 , 8 , 10 , 12 , 14 , 16 , 18 , 20

b) 0 , 3 , 6 , 9 , 12 , 15 , 18 , 21 , 24 , 27 , 30

c) 0 , 4 , 8 , 12 , 16 , 20 , 24 , 28 , 32 , 36 , 40

d) 0 , 5 , 10 , 15 , 20 , 25 , 30 , 35 , 40 , 45 , 50

e) 0 , 6 , 12 , 18 , 24 , 30 , 36 , 42 , 48 , 54 , 60

f) 0 , 7 , 14 , 21 , 28 , 35 , 42 , 49 , 56 , 63 , 70

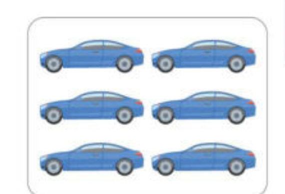
9 Answer the following:

a) On Samira's walk home, she saw 6 cars.

If each car has 4 wheels,

how many wheels did she see in all?

6 × 4 = 24 wheels

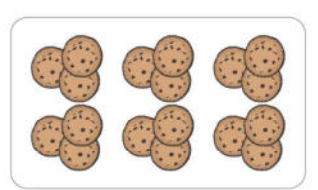


b) Manal brought 6 bags of cookies to school.

Each bag had 3 cookies.

How many cookies were there altogether?

6 × 3 = 18 cookies



c) Malek runs 3 miles each day.

How many miles does he run in 7 days?

7 × 3 = 21 miles

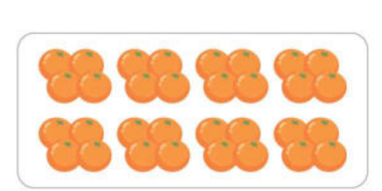


d) A bag of oranges contains 4 oranges.

How many oranges are there in

8 bags?

8 × 4 = 32 oranges



Multiples of 8 , 9 and 10

1 Complete:

ⓐ

8 × 1 = 8
8 × 3 = 24
8 × 5 = 40
8 × 7 = 56
8 × 9 = 72
8 × 10 = 80
8 × 8 = 64
8 × 6 = 48
8 × 4 = 32
8 × 2 = 16
8 × 0 = 0

ⓑ

9 × 1 = 9
9 × 3 = 27
9 × 5 = 45
9 × 7 = 63
9 × 9 = 81
9 × 10 = 90
9 × 8 = 72
9 × 6 = 54
9 × 4 = 36
9 × 2 = 18
9 × 0 = 0

ⓒ

0 × 10 = 0
1 × 10 = 10
2 × 10 = 20
3 × 10 = 30
4 × 10 = 40
5 × 10 = 50
6 × 10 = 60
7 × 10 = 70
8 × 10 = 80
9 × 10 = 90
10 × 10 = 100

2 Complete:

ⓐ

1 × 9 = 9
3 × 9 = 27
5 × 9 = 45
7 × 9 = 63
9 × 9 = 81
10 × 9 = 90
8 × 9 = 72
6 × 9 = 54
4 × 9 = 36
2 × 9 = 18
0 × 9 = 0

ⓑ

0 × 8 = 0
1 × 8 = 8
2 × 8 = 16
3 × 8 = 24
4 × 8 = 32
5 × 8 = 40
6 × 8 = 48
7 × 8 = 56
8 × 8 = 64
9 × 8 = 72
10 × 8 = 80

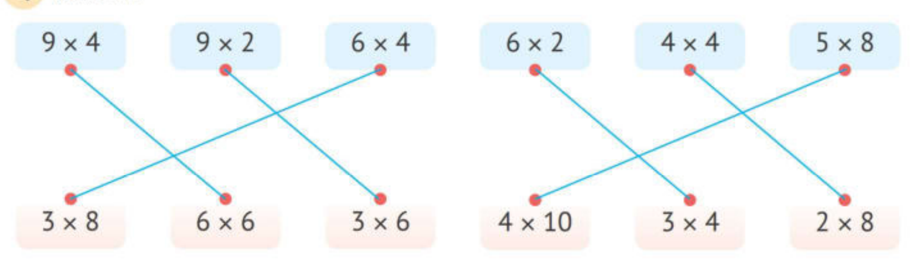
ⓒ

5 × 10 = 50
3 × 10 = 30
7 × 10 = 70
2 × 10 = 20
9 × 10 = 90
1 × 10 = 10
6 × 10 = 60
4 × 10 = 40
8 × 10 = 80
0 × 10 = 0
10 × 10 = 100

3 Complete:

- $2 \times 2 = 4$
- $2 \times 7 = 14$
- $3 \times 7 = 21$
- $4 \times 8 = 32$
- $6 \times 8 = 48$
- $2 \times 3 = 6$
- $3 \times 5 = 15$
- $3 \times 8 = 24$
- $5 \times 7 = 35$
- $7 \times 7 = 49$
- $2 \times 4 = 8$
- $4 \times 4 = 16$
- $4 \times 6 = 24$
- $6 \times 6 = 36$
- $6 \times 9 = 54$
- $3 \times 3 = 9$
- $2 \times 8 = 16$
- $5 \times 5 = 25$
- $4 \times 9 = 63$
- $7 \times 8 = 56$
- $2 \times 5 = 10$
- $3 \times 6 = 18$
- $3 \times 9 = 27$
- $5 \times 8 = 40$
- $7 \times 9 = 63$
- $2 \times 6 = 12$
- $2 \times 9 = 18$
- $4 \times 7 = 28$
- $6 \times 7 = 42$
- $8 \times 8 = 64$
- $3 \times 4 = 12$
- $4 \times 5 = 20$
- $5 \times 6 = 30$
- $8 \times 9 = 72$
- $5 \times 9 = 45$
- $6 \times 10 = 60$
- $3 \times 10 = 30$
- $4 \times 10 = 40$
- $10 \times 10 = 100$
- $9 \times 9 = 81$

4 Match:



5 Use the 120 Chart to find:

a. List the common multiples of 2 and 3, up to 30:

6, 12, 18, 24, 30

b. List the common multiples of 5 and 4, up to 40:

20, 40

c. List the common multiples of 4 and 6, up to 60:

12, 24, 36, 48, 60

d. List the common multiples of 6 and 9, up to 60:

18, 36, 54

e. List the common multiples of 6 and 8, up to 80:

24, 48, 72

f. List all multiples of 10, up to 120:

10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, 120

g. List the common multiples of 5 and 10, up to 100:

10, 20, 30, 40, 50, 60, 70, 80, 90, 100

6 Complete in the same pattern:

a. 0 , 2 , 4 , 6 , 8 , 10 , 12 , 14 , 16 , 18 , 20

b. 30 , 27 , 24 , 21 , 18 , 15 , 12 , 9 , 6 , 3 , 0

ⓒ 0 , 4 , 8 , 12 , 16 , 20 , 24 , 28 , 32 , 36 , 40

ⓓ 50 , 45 , 40 , 35 , 30 , 25 , 20 , 15 , 10 , 5 , 0

ⓔ 0 , 6 , 12 , 18 , 24 , 30 , 36 , 42 , 48 , 54 , 60

ⓕ 70 , 63 , 56 , 49 , 42 , 35 , 28 , 21 , 14 , 7 , 0

ⓖ 0 , 8 , 16 , 24 , 32 , 40 , 48 , 56 , 64 , 72 , 80

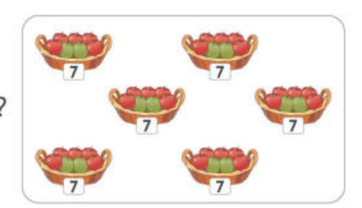
ⓗ 90 , 81 , 72 , 63 , 54 , 45 , 36 , 27 , 18 , 9 , 0

7 Answer the following:

ⓐ There are 7 apples in each basket.

How many apples are there in 6 baskets?

6 × 7 = 42 apples

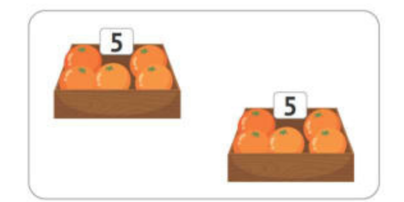


ⓑ Eman has 2 boxes of oranges.

Each box contains 5 oranges.

How many oranges does Eman have?

2 × 5 = 10 oranges

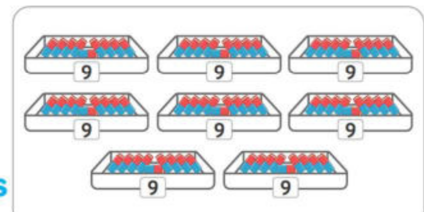


ⓒ There are 9 erasers in each box.

How many erasers are there in

8 boxes?

9 × 8 = 72 erasers



Accumulative Assessment 10 up to Lesson 4

Chapter 3

First: Choose the correct answer:

a) 6 × .... = 4 × 9 (6 or 7 or 8)

b) 8 + 8 + 8 + 8 + 8 = ... (8 × 8 or 8 + 5 or 4 × 10)

c) 450 + 45 = ... (45 045 or 495 or 4 545)

d) 750,000 + 15,000 + 40 = ... (751,540 or 765,040 or 750,190)

e) 200 Thousands = ... Tens (200,000 or 20,000 or 2,000)

Second: Complete the following:

a) The number that comes just **before** 20,000 is 19,999

b) The **value** of the digit 0 in 23,**0**54 is 0 .

c) 10 × 3 = 6 × 5

d) 8 + 8 + 8 + 8 + 8 + 8 = 6 × 8

e) Nine hundred thousand and nine (in standard form) = 900,009

Third: Answer the following:

a) **Find the result of the following:**

① 9 × 5 = 45

② 8 × 8 = 64

③ 3 × 4 = 12

b) **Complete using (<, = or >):**

① 5 + 5 + 5 + 5 < 5 × 5

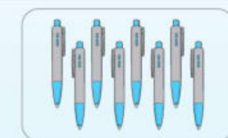
② 4 + 4 + 4 = 2 × 6

③ 8 × 5 > 8 + 5

④ 9 × 3 = 3 × 9

c) If each pen costs **6**LE,
how much do 8 pens cost?

6 × 8 = 48 LE



Lesson 5 Factors of a Number Using Arrays

1 **Write the factor pairs and factors of each number:**

ⓐ 3

1 × 3 | 3 × 1

Factors are 1, 3.

ⓑ 2

1 × 2 | 2 × 1

Factors are 1, 2.

ⓒ 11

1 × 11 | 11 × 1

Factors are 1, 11.

ⓓ 13

1 × 13 | 13 × 1

Factors are 1, 13.

ⓔ 4

1 × 4 | 4 × 1

2 × 2

Factors are 1, 2, 4.

ⓕ 9

1 × 9 | 9 × 1

3 × 3

Factors are 1, 3, 9.

ⓖ 25

1 × 25 | 25 × 1

5 × 5

Factors are 1, 5, 25.

ⓗ 49

1 × 49 | 49 × 1

7 × 7

Factors are 1, 7, 49.

ⓘ 6

1 × 6 | 6 × 1

2 × 3 | 3 × 2

Factors are 1, 2, 3, 6.

ⓙ 10

1 × 10 | 10 × 1

2 × 5 | 5 × 2

Factors are 1, 2, 5, 10.

12

(k)
1 × 12 | 12 × 1
2 × 6 | 6 × 2
3 × 4 | 4 × 3

Factors are 1, 2, 3, 4, 6, 12 .

18

(l)
1 × 18 | 18 × 1
2 × 9 | 9 × 2
3 × 6 | 6 × 3

Factors are 1, 2, 3, 6, 9, 18 .

16

(m)
1 × 16 | 16 × 1
2 × 8 | 8 × 2
4 × 4

Factors are 1, 2, 4, 8, 16 .

20

(n)
1 × 20 | 20 × 1
2 × 10 | 10 × 2
4 × 5 | 5 × 4

Factors are 1, 2, 4, 5, 10, 20 .

2 Complete the following:

(a) The number **1** has 1 factor (s).

(b) The number **3** has 2 factor (s).

(c) The number **2** has 2 factor (s).

(d) The number **17** has 2 factor (s).

(e) The number **24** has 8 factor (s).

(f) The number **30** has 8 factor (s).

(g) **1** , **2** , **3** , **4** , **6** , and **12** are the **factors** of 12 .

(h) **1** , **3** , **5** , and **15** are the **factors** of 15 .

Accumulative Assessment 11 up to Lesson 5

Chapter 3

First: **Choose the correct answer:**

a) Eight hundred thousand, eight hundred (in standard form) is ....

(800,800 or 808,000 or 800,008)

b) The **smallest** 5-different-digit number is ....

(10,000 or 11,111 or 10,234)

c) 500,000 + 2 + 40,000 + 60 + 9,000 + 700 = ...

(524,697 or 549,762 or 267,945)

d) 5 + 5 + 5 + 5 = ... (4 + 5 or 4 × 5 or 5 × 5)

e) 9 + 9 + 9 + 9 = 6 × .... (9 or 4 or 6)

Second: **Complete the following:**

a) The **place value** of 0 in 208,123 is Ten Thousands

b) 95 Thousands + 4 Ones + 6 Hundreds = 95,604

c) XL, XXL, XXXL, XXXXL, XXXXXL (in the same pattern)

d) 6 × 3 = 6 + 6 + 6

e) 8 × 0 = 0

Third: **Answer the following:**

a) **Write the factor pairs and factors of each number:**

8

1 × 8 | 8 × 1
2 × 4 | 4 × 2

Factors are 1, 2, 4, 8 ....

15

1 × 15 | 15 × 1
3 × 5 | 5 × 3

Factors are 1, 3, 5, 15 ....

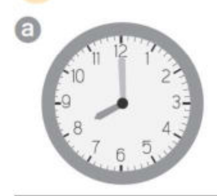
b) Marwa has **4** bags of apples, each bag contains **6** apples.
How many apples are there in all bags?

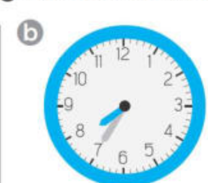
4 X 6 = 24 apples



Lessons 6&7 Time – Applications on Time

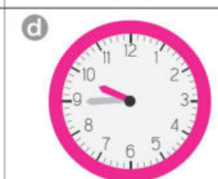
1 Write the time shown on the digital clock and in words:

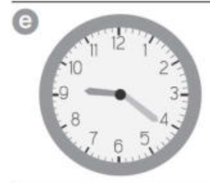
a

8 : 00
8 o'clock

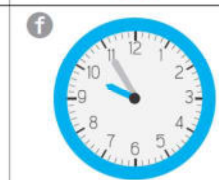
b

7 : 35
25 to 8

c

10 : 10
10 past 10

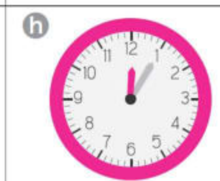
d

9 : 45
Quarter to 10

e

9 : 20
20 past 9

f

9 : 55
5 to 10

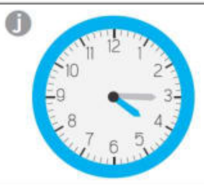
g

11 : 30
Half past 11

h

12 : 05
5 past 12

i

5 : 40
20 to 6

j

4 : 15
Quarter past 4

k

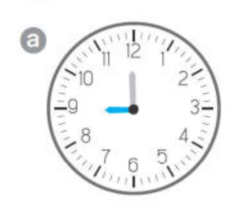
2 : 50
10 to 3

l

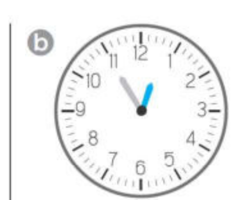
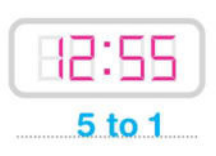
1 : 25
25 past 1



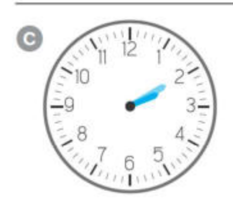
2 Draw the analog clock hands and write the time in words:

a


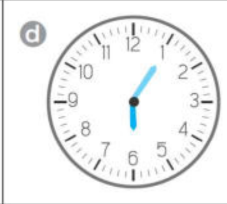

9 o'clock

b



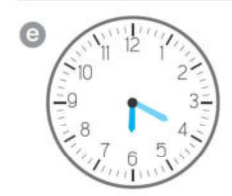
5 to 1

c


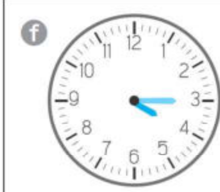

10 past 2

d


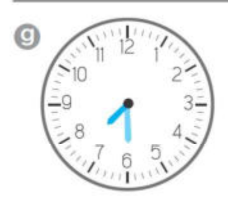

5 past 6

e


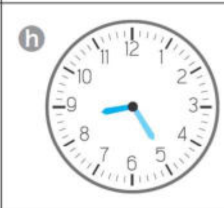

20 past 6

f


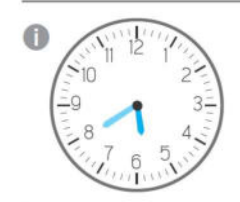

Quarter past 4

g


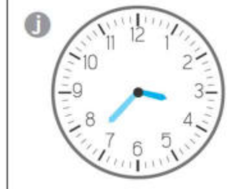

Half past 7

h


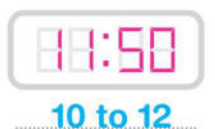

25 past 8

i



20 to 6

j



25 to 4

k


10 to 12

l



Quarter to 11

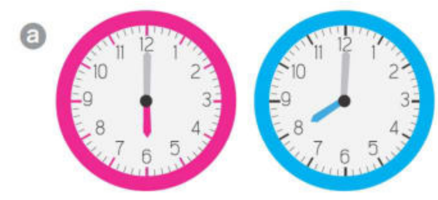


3 Draw the hands of the analog clock and write the time on the digital clock:

	Digital clock	Time
a	5 : 10	It's 10 past 5.
b	11 : 15	It's quarter past 11.
c	9 : 00	It's 9 o'clock.
d	7 : 05	It's 5 past 7.
e	2 : 30	It's half past 2.
f	3 : 35	It's 25 to 4.
g	3 : 20	It's 20 past 3.
h	1 : 25	It's 25 past 1.
i	9 : 50	It's 10 to 10.
j	11 : 55	It's 5 to 12.
k	6 : 20	It's 20 past 6.
l	7 : 45	It's quarter to 8.

4 Calculate the elapsed time between the two clocks:

a



Elapsed time: 2 hours

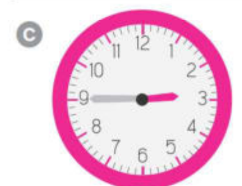
b





Elapsed time: 30 minutes

c

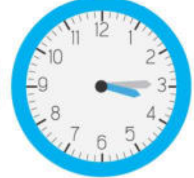




Elapsed time: 4 hours

d





Elapsed time: 40 minutes

e





Elapsed time: 9 hours

f



09:08

Elapsed time: 4 hours

g





Elapsed time: 18 minutes

h

10:03



Elapsed time: 37 minutes

i





Elapsed time: 30 minutes

j

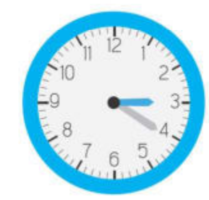




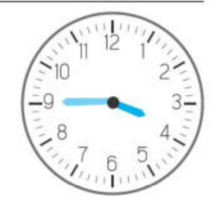
Elapsed time: 15 minutes



5 You leave school at 3:00 and when you get home, the clock is as shown:
How many minutes did it take you to walk home?
20 minutes .



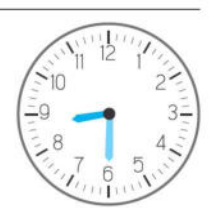
6 If it takes you 45 minutes to walk home from school and you leave at 3:00, what time will it be when you get home?
Draw the time on the clock.



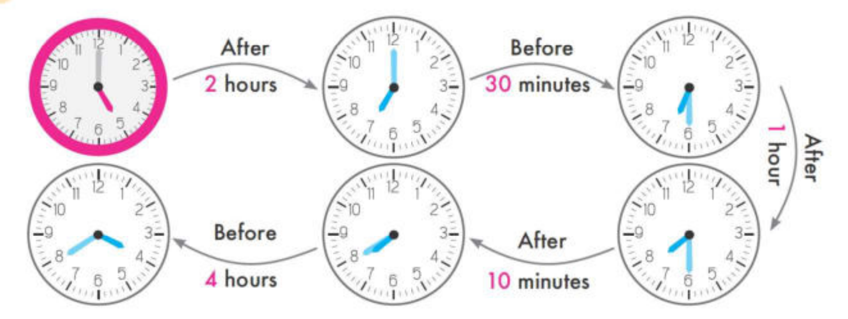
7 Your mom put some muffins in the oven at 7:00.
When you take them out, the clock is as shown.
How many minutes did it take her to bake the muffins?
30 minutes .



8 If Ahmed takes 30 minutes to go to the club from home, he leaves at 8:00, when will he arrive at the club?
Draw the time on the clock.



9 Complete the following:



Accumulative Assessment 12 up to Lesson 7

Chapter 3

First: Choose the correct answer:

a) $3 + 3 + 3 + 3 + 3 + 3 + 3 + 3 =$ .... (3×3 or $3 + 8$ or 4×6)

b) $720{,}072 = 72 +$ .... (720,000 or 7,200 or 720)

c) $5 \times 8 = 10 \times$ .... (400 or 40 or 4)

d) The **value** of the digit 3 in **3**5,689 is ....

(300,000 or 30,000 or 3,000)

e) The **largest** 5-digit number is .... (10,000 or 98,765 or 99,999)

Second: Complete the following:

a) The number that comes just **after** 60,099 is 60,100 .

b) $8 \times 5 =$ 5 $\times 8$

c) An hour = 60 minutes

d) 8 $\times 8 = 64$

e) 60,020 (in word form): Sixty thousand, twenty

Third: Answer the following:

a) Arrange the following numbers in an **ascending** order:

2,458 , 6,854 , 8,214 , 1,024 , 4,325

• 1,024 , 2,458 , 4,325 , 6,854 , 8,214

b) If each T-shirt costs **7**LE, how much do **9** T-shirts cost?

9 X 7 = 63 LE .

c) The time is now **7:00**.

What time will it be after 40 minutes?

Draw the time on the clock.



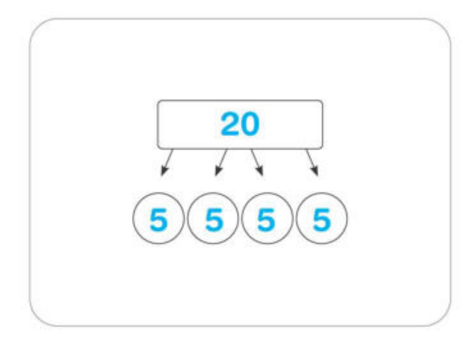


Lessons 8&9 Division – Applications on Division

Answer the following questions:

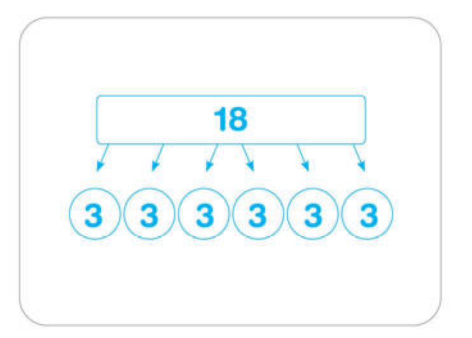
1 There are 20 fish that need to be placed equally in 4 bowls. How many fish should be put in each bowl?
Draw a part-part-whole model to show your answer.

20 ÷ 4 = 5



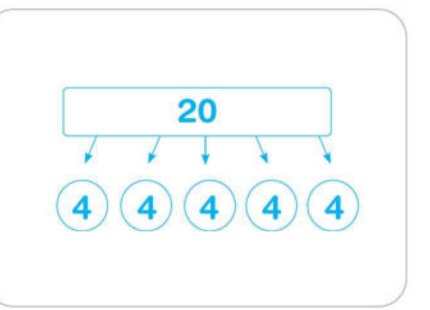
2 The teacher has 18 crayons to be shared equally between 6 students.
What is the share of each?
Draw a part-part-whole model to show your answer.

18 ÷ 6 = 3



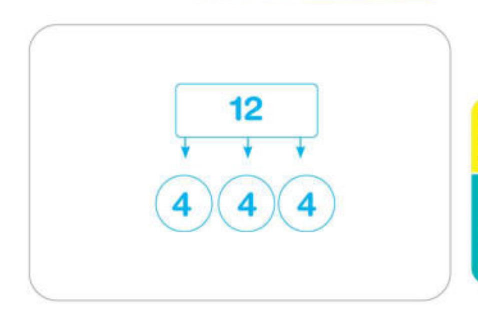
3 Salah has 20 oranges that need to be divided equally between 5 baskets.
Draw a part-part-whole model to show your answer.

20 ÷ 5 = 4



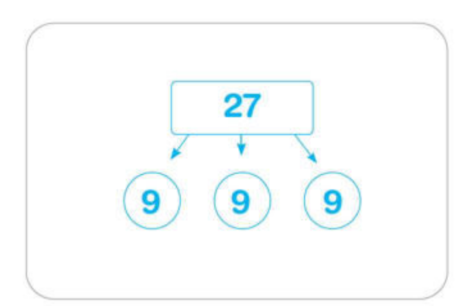
4 Eman is inviting 3 friends to a party. She has 12 cookies. How many cookies will each friend get?
Draw a part-part-whole model to show your answer.

12 ÷ 3 = 4



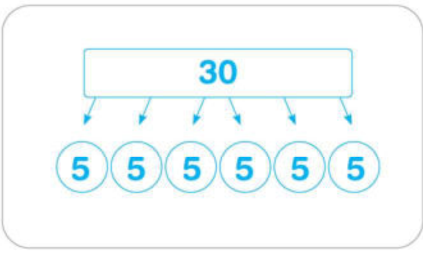
5 Judy has 27 pencils stored in boxes. If there are 3 boxes, how many pencils will be put in each box?
Draw a part-part-whole model to show your answer.

27 ÷ 3 = 9



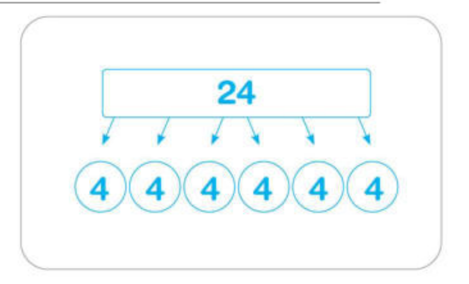
6 There are 6 students in a class. There are 30 peanuts to be divided among them.
If the peanuts are divided equally, how many peanuts does each student get?
Draw a part-part-whole model to show your answer.

30 ÷ 6 = 5

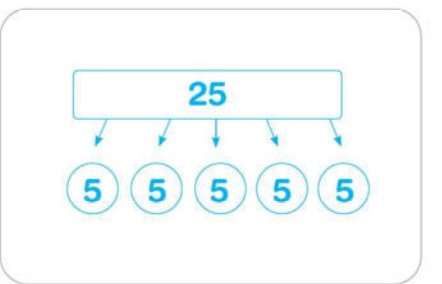


7 There are 24 insects, and each jackal must eat 6 insects.
How many jackals will we feed?
Draw a part-part-whole model to show your answer.

24 ÷ 6 = 4

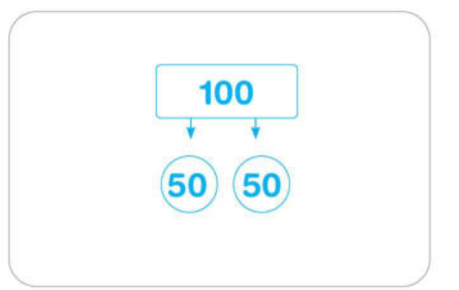


8 There are 25 fish and each crocodile needs to eat 5 fish.
How many crocodiles will we feed?
Draw a part-part-whole model to show your answer.



25 ÷ 5 = 5

9 Each bull eats 2 bales of hay each day.
If there are 100 bales, how many bulls can we feed?
Draw a part-part-whole model to show your answer.



100 ÷ 2 = 50

10 **Divide:**

a) 6 ÷ 3 = 2
b) 24 ÷ 4 = 6
c) 45 ÷ 5 = 9
d) 63 ÷ 9 = 7
e) 81 ÷ 9 = 9
f) 15 ÷ 3 = 5
g) 32 ÷ 4 = 8
h) 56 ÷ 7 = 8
i) 72 ÷ 9 = 8
j) 8 ÷ 4 = 2
k) 18 ÷ 3 = 6
l) 28 ÷ 7 = 4
m) 48 ÷ 8 = 6
n) 36 ÷ 9 = 4
o) 54 ÷ 6 = 9
p) 25 ÷ 5 = 5

Accumulative Assessment 13 up to Lesson 9

Chapter 3

First: **Choose the correct answer:**

a The number that comes just **after** 25,099 is ....

(25,100 or 26,000 or 25,098)

b 6 + 6 + 6 + 6 + 6 = ...

(5 + 6 or 3 × 10 or 6 × 6)

c 85,085 = ... + 85

(85 or 850 or 85,000)

d 8 × 5 = ... × 8

(5 or 8 or 40)

e **1** , **3** , **5** , and **15** are the factors of ....

(3 or 5 or 15)

Second: **Complete the following:**

a Seventy-five thousand, nine hundred two = 75,902 (in standard form)

b 10 + 10 + 10 + 10 + 10 = 5 × 10 = 50

c The **place value** of 7 in 54,789 is Hundreds

d The **greatest** 5-different-digit number is 98,765.

e OX , OOXX , OOOXXX , OOOO XXXX

Third: **Answer the following:**

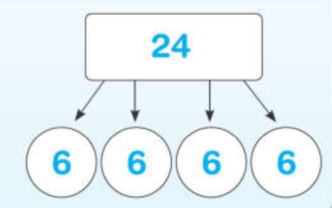
a **Complete using (<, = or >):**

1. 7 × 3 < 6 × 4
2. 95 Thousands + 95 > 9,595
3. 8 × 0 < 2 × 1
4. 3 + 3 + 3 + 3 = 6 × 2

b Divide **24** apples equally between **4** baskets.

Draw a part-part-whole model to show your answer.

24 ÷ 4 = 6





Chapter 3

Lesson 10 The Relation Between Multiplication and Division

1 Find the missing factor in the triangles, then write the four equations to complete the fact family:

a (12; 3, 4)

3 × 4 = 12
4 × 3 = 12
12 ÷ 3 = 4
12 ÷ 4 = 3

b (14; 2, 7)

2 × 7 = 14
7 × 2 = 14
14 ÷ 2 = 7
14 ÷ 7 = 2

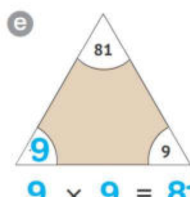
c (24; 8, 3)

8 × 3 = 24
3 × 8 = 24
24 ÷ 3 = 8
24 ÷ 8 = 3

d (36; 6, 6)

6 × 6 = 36
36 ÷ 6 = 6

e (81; 9, 9)



9 × 9 = 81
81 ÷ 9 = 9

f (21; 7, 3)

7 × 3 = 21
3 × 7 = 21
21 ÷ 3 = 7
21 ÷ 7 = 3

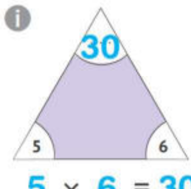
g (42; 6, 7)

6 × 7 = 42
7 × 6 = 42
42 ÷ 6 = 7
42 ÷ 7 = 6

h (48; 8, 6)

8 × 6 = 48
6 × 8 = 48
48 ÷ 6 = 8
48 ÷ 8 = 6

i (30; 5, 6)



5 × 6 = 30
6 × 5 = 30
30 ÷ 5 = 6
30 ÷ 6 = 5

j (27; 3, 9)

9 × 3 = 27
3 × 9 = 27
27 ÷ 3 = 9
27 ÷ 9 = 3

k (36; 4, 9)

4 × 9 = 36
9 × 4 = 36
36 ÷ 9 = 4
36 ÷ 4 = 9

l (16; 2, 8)

2 × 8 = 16
8 × 2 = 16
16 ÷ 2 = 8
16 ÷ 8 = 2

2 Divide:

a) $25 \div 5 =$ 5

b) $15 \div 5 =$ 3

c) $30 \div 5 =$ 6

d) $36 \div 6 =$ 6

e) $45 \div 5 =$ 9

f) $72 \div 8 =$ 9

g) $18 \div 9 =$ 2

h) $16 \div 4 =$ 4

i) $20 \div 5 =$ 4

j) $21 \div 7 =$ 3

3 Divide:

a) 2 ⟌ 8 → 4

b) 3 ⟌ 6 → 2

c) 5 ⟌ 10 → 2

d) 4 ⟌ 12 → 3

e) 9 ⟌ 36 → 4

f) 6 ⟌ 24 → 4

g) 3 ⟌ 24 → 8

h) 4 ⟌ 28 → 7

i) 3 ⟌ 27 → 9

j) 6 ⟌ 30 → 5

k) 8 ⟌ 8 → 1

l) 7 ⟌ 63 → 9

4 Divide:

a) $\frac{40}{5} =$ 8

b) $\frac{42}{6} =$ 7

c) $\frac{45}{5} =$ 9

d) $\frac{54}{9} =$ 6

e) $\frac{63}{7} =$ 9

f) $\frac{64}{8} =$ 8

g) $\frac{72}{8} =$ 9

h) $\frac{81}{9} =$ 9

i) $\frac{48}{8} =$ 6

5 Complete the following:

a) 4 ÷ 2 = 2

b) 9 ÷ 3 = 3

c) 8 ÷ 4 = 2

d) 12 ÷ 6 = 2

e) 16 ÷ 8 = 2

f) 32 ÷ 4 = 8

g) 35 ÷ 7 = 5

h) 40 ÷ 8 = 5

i) 36 ÷ 6 = 6

6 Describe each of the following arrays using one multiplication problem and one division problem:

a)

3 X 5 = 15

15 ÷ 5 = 3

b)

3 X 4 = 12

12 ÷ 4 = 3

c)

2 X 6 = 12

12 ÷ 6 = 2

d)

4 X 6 = 24

24 ÷ 6 = 4

Accumulative Assessment 14 up to Lesson 10

Chapter 3

First: Choose the correct answer:

a) The number that comes just **before** 20,500 is ....
(20,499 or 20,501 or 10,500) — circled: 20,499

b) 28 ÷ .... = 7 (3 or 4 or 5) — circled: 4

c) 6 × 5 = ... × 10 (5 or 6 or 3) — circled: 3

d) 8 + 8 + 8 = ... (8 + 3 or 6 + 4 or 6 × 4) — circled: 6 × 4

e) Eighteen thousand, eight hundred and eight = ...
(18,808 or 80,808 or 18,880) — circled: 18,808

Second: Complete the following:

a) 25 Thousands + 105 Tens = 25,000 + 1,050 = 26,050

b) 56 ÷ 8 = 7

c) 4 × 5 = 5 + 5 + 5 + 5

d) The **smallest** 6-digit number is 100,000

e) 3 × 3 = 36 ÷ 4

Third: Answer the following:

a) **Find the result:**

1. 7 × 2 = 14
2. 45 ÷ 5 = 9
3. 5 × 4 = 20
4. 63 ÷ 9 = 7

b) **Complete using (<, = or >):**

1. 6 × 6 > 4 + 9
2. 18 ÷ 2 > 48 ÷ 6
3. 4 + 4 + 4 + 4 = 2 × 8
4. 8 ÷ 8 < 1 × 8

c) The price of each book is **8** pounds.
How many books can you buy if you have **40** pounds?
40 ÷ 8 = 5 LE .

PUZZLE

1 Color the shapes on the grid and fill in the missing numbers if the **product** of the numbers in each shape is **16**:

Ex.

2	2	
	2	2

4	3	2	4	5	2	8	3
4	5	5	3	2	3	4	6
2	7	4	2	4	5	6	7
3	5	2	7	5	2	2	4
6	2	5	4	3	3	2	2

2 Match equal times:

1 Half an hour

2 A quarters of an hour

3 3 quarters of an hour

4 2 thirds of an hour

5 15 minutes

6 30 minutes

7 A third of an hour

8 45 minutes

9 40 minutes

10 20 minutes

3 Write a division equation to show how 36 sweets can be shared equally among:

a 3 children ....

b 6 children ....

a 9 children ....

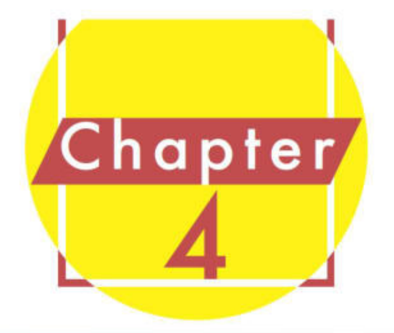
d 4 children ....

Answers

1 | 2 | 8 | ; | 2 | 4 | 2 | ; | 4 | 4 |

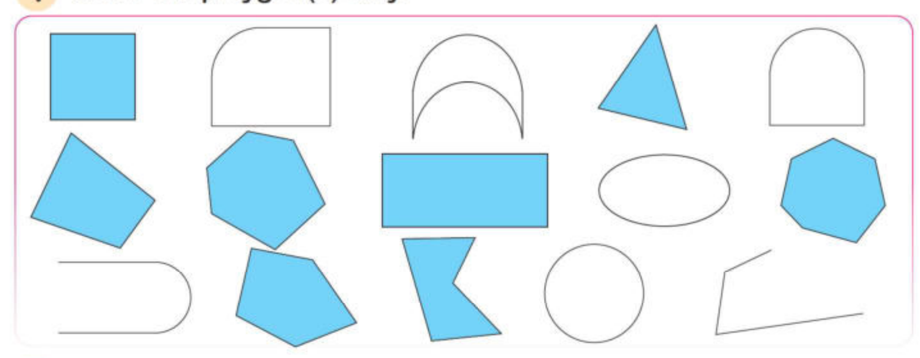
2 1 → 6, 4 → 9, 2 → 5, 7 → 10, 3 → 8

3 a 12, b 6, c 4, d 9

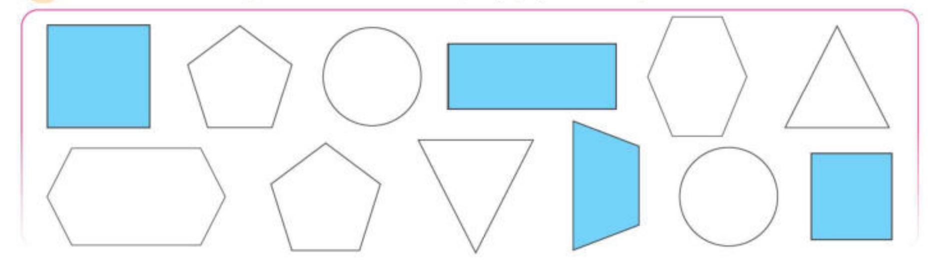


Lesson 1 Polygons

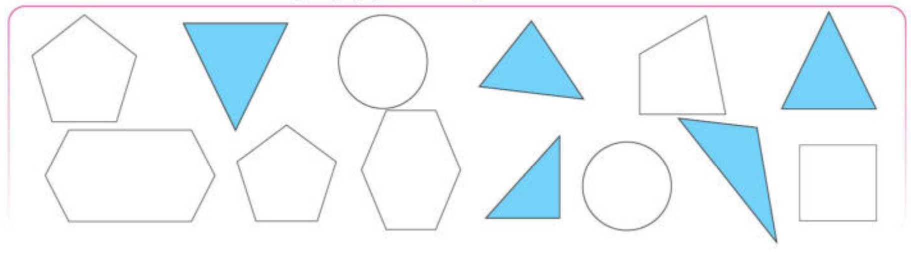
1 Color the polygon(s) only:



2 ⓐ Color the quadrilateral shape(s) (4 sides):

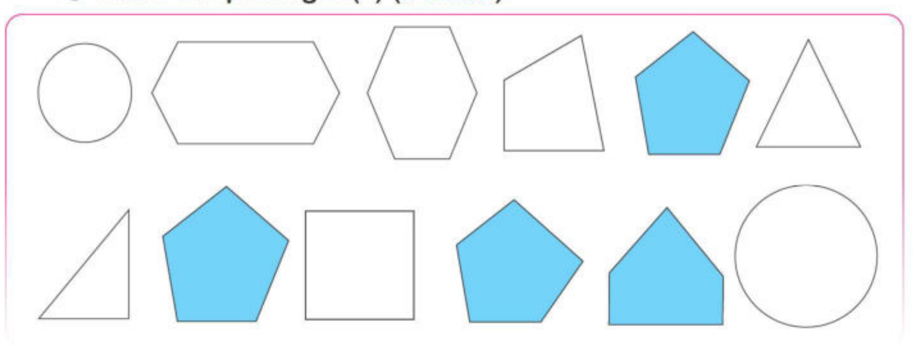


ⓑ Color the triangle(s) (3 sides):

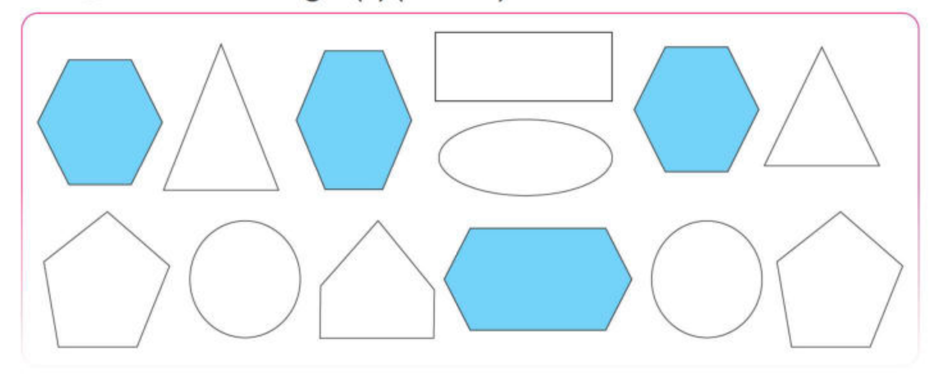




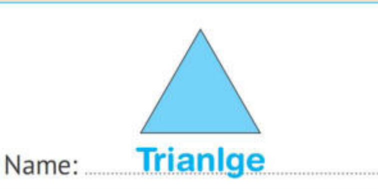
ⓒ Color the pentagon(s) (5 sides):



ⓓ Color the hexagon(s) (6 sides):



ⓔ Draw a shape with 3 sides:



Name: Trianlge

ⓕ Draw a shape with 4 sides:



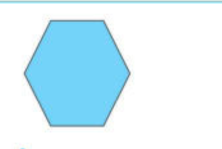
Name: Quadrilateral

ⓖ Draw a shape with 5 sides:



Name: pentagon

ⓗ Draw a shape with 6 sides:



Name: hexagon

3 Complete:

ⓐ The **triangle** has 3 sides, 3 angles, and 3 vertices.

ⓑ The **octagon** has 8 sides, 8 angles, and 8 vertices.

ⓒ The **pentagon** has 5 sides, 5 angles, and 5 vertices.

ⓓ The **hexagon** has 6 sides, 6 angles, and 6 vertices.

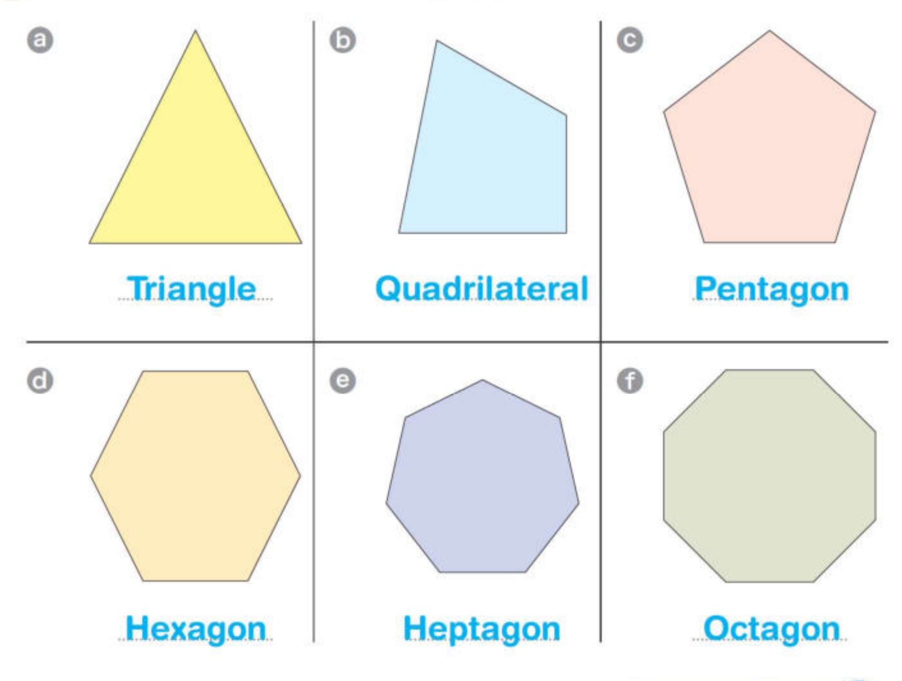
ⓔ The pentagon has **5** sides, but the hexagon has **6** sides.

ⓕ The heptagon has **7** sides, but the triangle has **3** sides.

ⓖ The **octagon** has 8 angles, but the heptagon has **7** sides.

ⓗ The **triangle** has 3 angles, but the quadrilateral has **4** angles.

4 Write down the name of each polygon:



Accumulative Assessment 15 up to Lesson 1

Chapter 4

First: Choose the correct answer:

a) 10 Thousands + 10 Hundreds + 10 Tens = ...

(101,010 or 11,100 or 10,110)

b) 8 + 8 + 8 + 8 = ... (8 x 8 or 8 + 4 or 8 x 4)

c) The **quadrilateral** has .... sides. (3 or 4 or 5)

d) 5 cm = ... mm (500 or 50 or 5)

e) An hour + 10 minutes = ... minutes (110 or 130 or 70)

Second: Complete the following:

a) The **polygon** that has **5** angles is called pentagon

b) 5 x 8 = 8 + 8 + 8 + 8 + 8

c) 20,015 = 20,000 + 10 + 5

d) The **smallest** 5-digit number that can be formed from the digits 3, 8, and 7 is 33,378 .

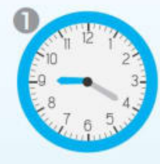
e) 70 , 63 , 56 , 49 , 42 , 35 , 28

Third: Answer the following:

a) **Find the result:**

1. 40,000 + 500 + 60 + 2 = 40,562
2. 0 x 8 = 0
3. 6 + 6 + 6 + 6 + 6 = 30
4. 56 ÷ 8 = 7

b) **Write the time shown on the clock:**

1. 

20 past 9

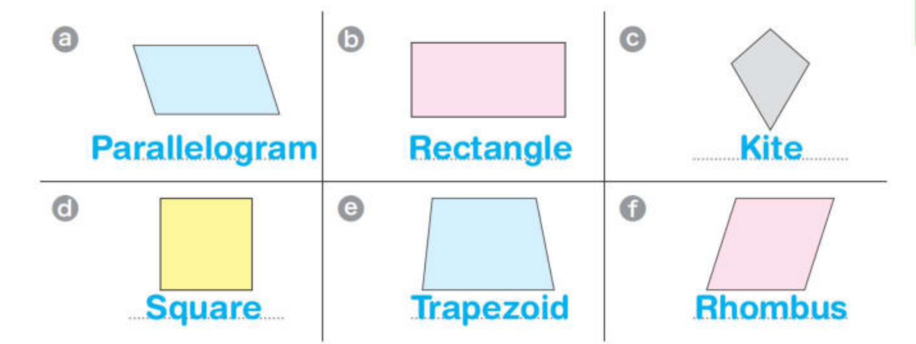
2. 10:45 Quarter to 11

c) If each pen costs **9**LE, how many pens can you buy with **63**LE?

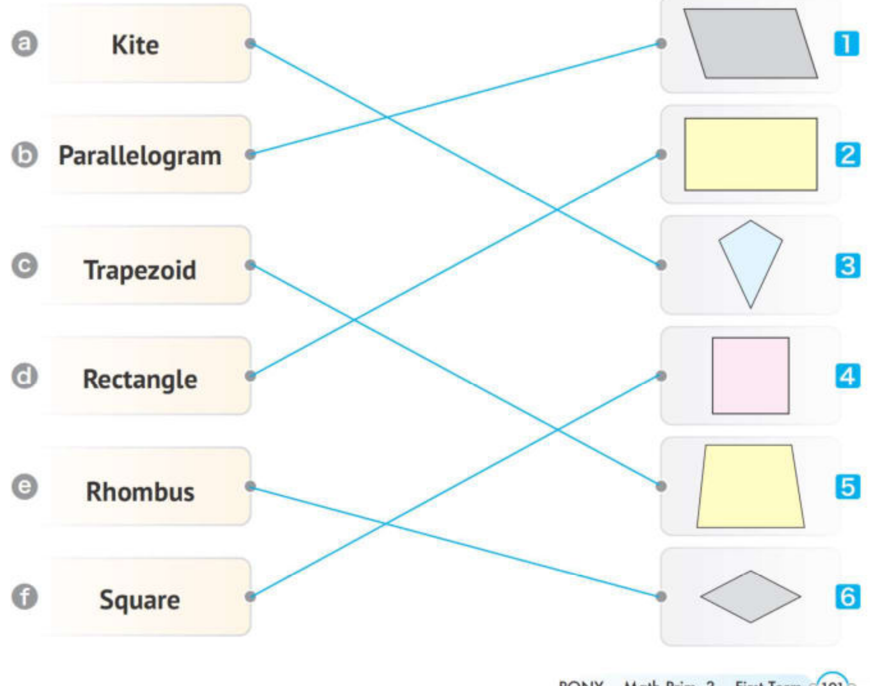
63 ÷ 9 = 7 pens

Lesson 2 Properties of Quadrilaterals

1 Write the name of each quadrilateral:



2 Match each quadrilateral to its name:





3 **Match the following quadrilaterals with their compatible properties. (Could be one quadrilateral or more):**

a. Each two opposite sides are parallel and all sides are equal.

b. Each two opposite sides are equal and parallel.

c. All angles are equal and each angle is a right angle.

d. Each two opposite angles are equal.

e. One pair of opposite angles is equal, and two pairs of adjacent sides are equal.

f. Only one pair of opposite sides is parallel.

4 Complete:

a. The **quadrilateral** is a polygon that has ....4.... sides.

b. Each two opposite sides are equal and parallel in parallelogram, ...square......, ...rectangle......, and ......rhombus...... .

c. All sides are **equal** in ......square......, and ......rhombus...... .

d. All angles are **equal** in ......square......, and ......rectangle...... .

e. Only one pair of opposite sides is **parallel** in ......trapezoid...... .

f. Two pairs of adjacent sides are **equal** in ......kite...... .

g. In the **parallelogram,** each two opposite sides are equal in length.

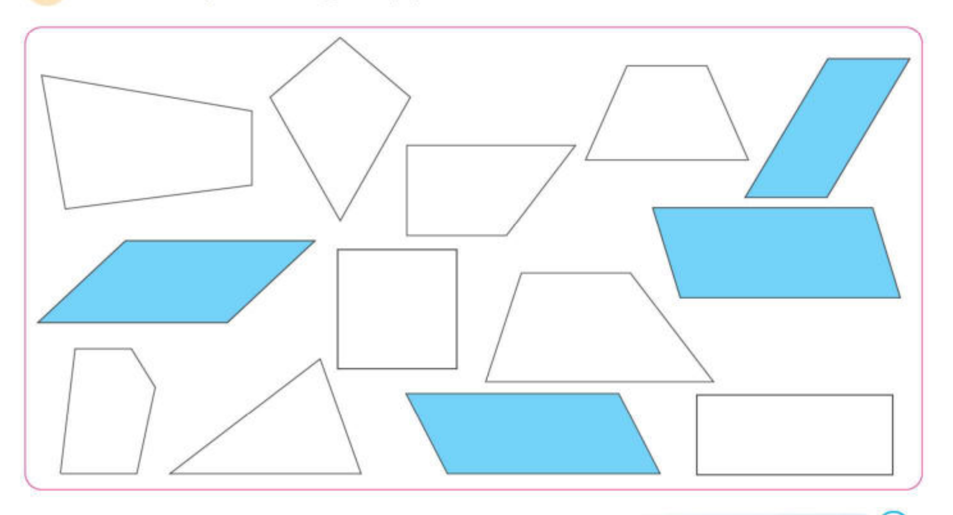
h. In the **rectangle,** all angles are ......right...... .

i. In the **square,** all sides are ......equal...... and all angles are ......right...... .

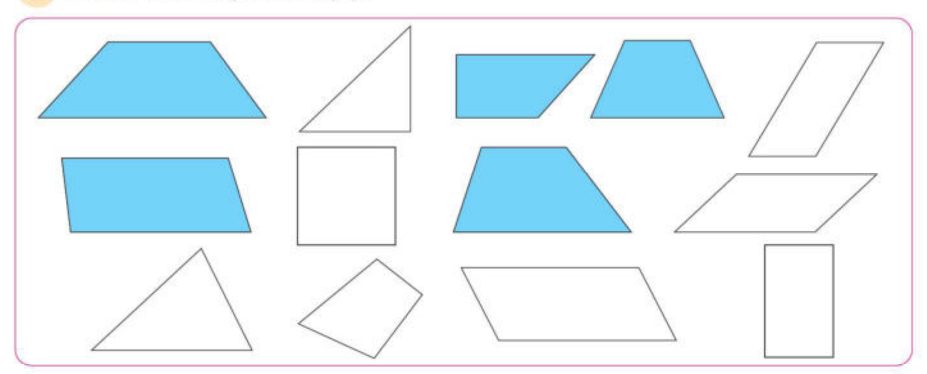
j. In the **trapezoid,** only one pair of opposite sides is ......parallel...... .

k. In the **kite,** two pairs of adjacent sides are ......equal...... .

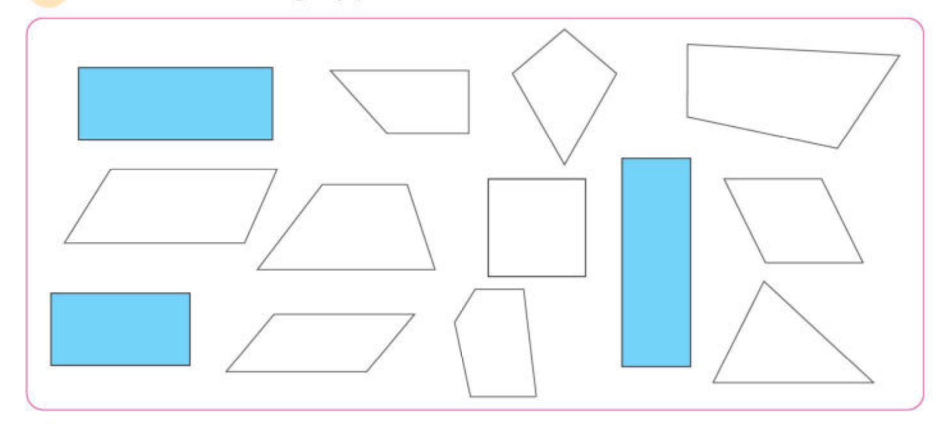
5 Color the parallelogram(s):



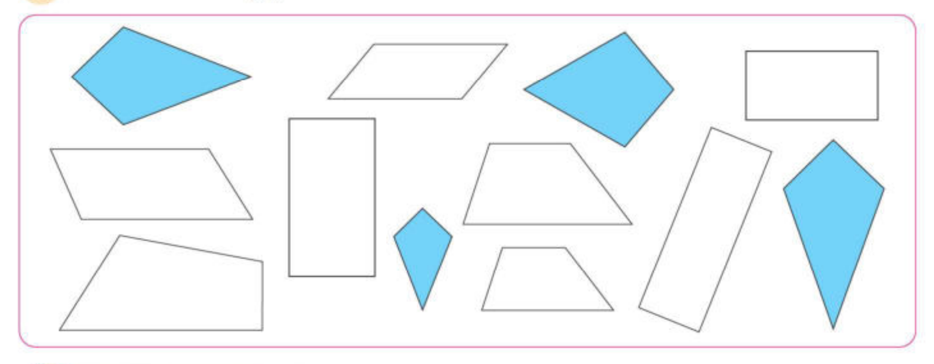
6 Color the trapezium(s):



7 Color the rectangle(s):



8 Color the kite(s):



Accumulative Assessment 16 up to Lesson 2

Chapter 4

First: Choose the correct answer:

a) Each two opposite sides are parallel in the ....
(square or trapezium or kite)

b) The **quadrilateral** has .... angles. (3 or 4 or 5)

c) 9 + 9 + 9 + 9 + 9 = ... (9 x 9 or 9 x 5 or 9 + 5)

d) 9 x 10 = ... x 9 (10 or 9 or 90)

e) The **value** of the digit 5 in **5**0,112 is ....
(50,000 or 5,000 or 500)

Second: Complete the following:

a) 45 Thousands + 10 Hundreds + 5 Ones = 46,005

b) The hexagon has **6** sides.

c) All angles are **right** angles in square and rectangle .

d) An hour = 60 minutes

e) 2 m = 200 cm

Third: Answer the following:

a) **Find the result:**

1. 56 – 35 = 21
2. 72 ÷ 9 = 8
3. 8 x 5 = 40
4. 50,000 + 500 + 5 = 50,505

b) **Write down the name of each quadrilateral:**

1. Parallelogram
2. Kite
3. Rectangle
4. Trapezoid

c) Each week has 7 days. How many days are there in 8 weeks?

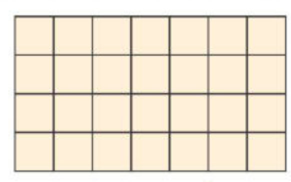
7 x 8 = 56 days



Lesson 3 Area

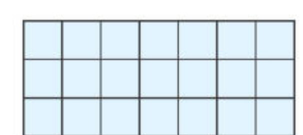
1 **Find the area of each shape:**

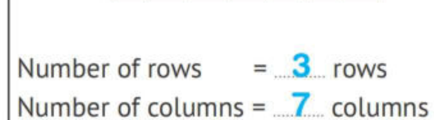
ⓐ



Number of rows = 4 rows
Number of columns = 7 columns
Area = 4 X 7
= 28 square units

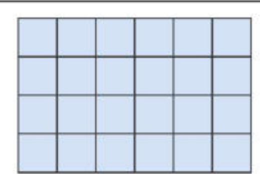
ⓑ





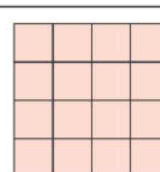
Number of rows = 3 rows
Number of columns = 7 columns
Area = 3 X 7
= 21 square units

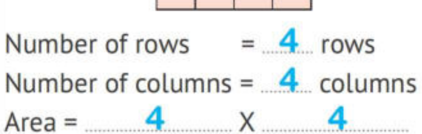
ⓒ



Number of rows = 4 rows
Number of columns = 6 columns
Area = 4 X 6
= 24 square units

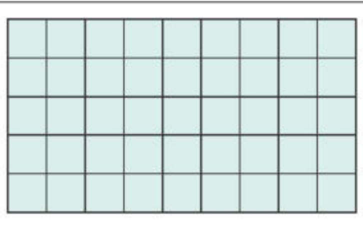
ⓓ





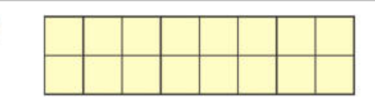
Number of rows = 4 rows
Number of columns = 4 columns
Area = 4 X 4
= 16 square units

ⓔ



Number of rows = 5 rows
Number of columns = 9 columns
Area = 5 X 9
= 45 square units

ⓕ

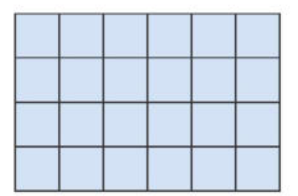


Number of rows = 2 rows
Number of columns = 8 columns
Area = 2 X 8



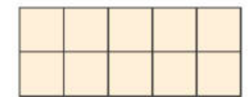
= 16 square units

g



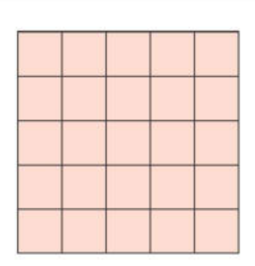
Length = 6 units
Width = 4 units
Area = 6 X 4
= 24 square units

h



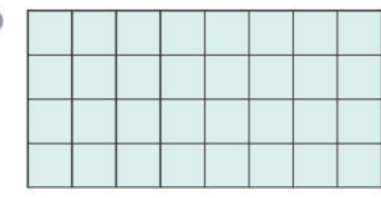
Length = 5 units
Width = 2 units
Area = 5 X 2
= 10 square units

i



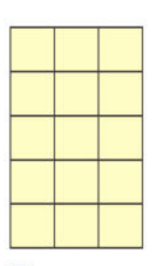
Length = 5 units
Width = 5 units
Area = 5 X 5
= 25 square units

j



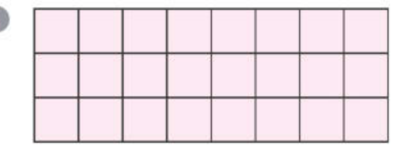
Length = 8 units
Width = 4 units
Area = 8 X 4
= 32 square units

k



Length = 5 units
Width = 3 units
Area = 5 X 3
= 15 square units

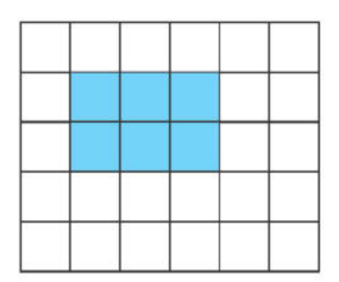
l



Length = 8 units
Width = 3 units
Area = 8 X 3
= 24 square units

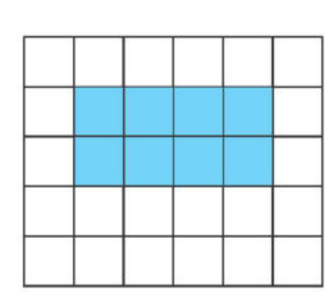
2 Use the grid to draw a rectangle representing each of the following multiplication sentences, then calculate the area:

a



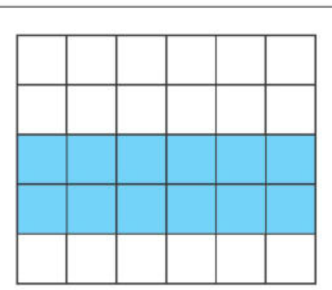
$2 \times 3 =$ 6

b



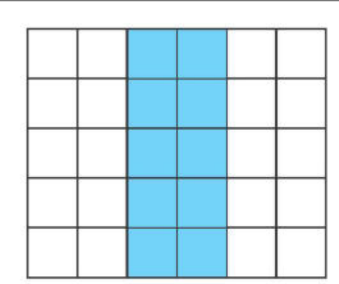
$2 \times 4 =$ 8

c



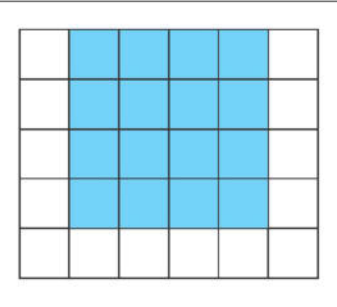
$6 \times 2 =$ 12

d



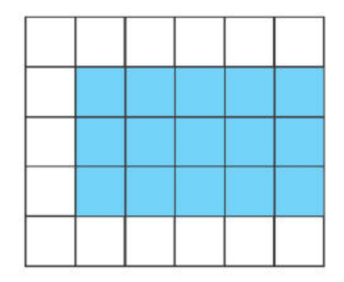
$5 \times 2 =$ 10

e



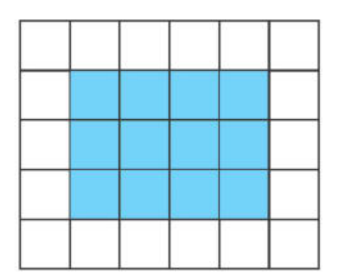
$4 \times 4 =$ 16

f



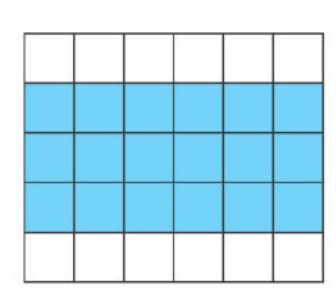
$3 \times 5 =$ 15

g



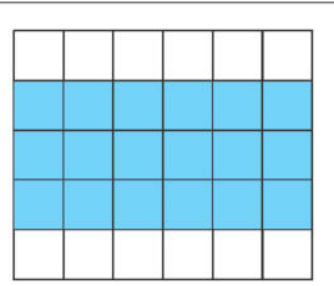
3 x 4 = 12 ☐

h



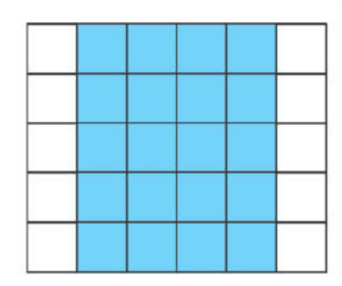
3 x 6 = 18 ☐

i



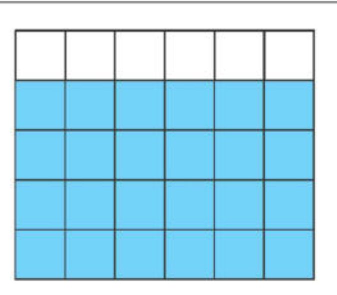
6 x 3 = 18 ☐

j



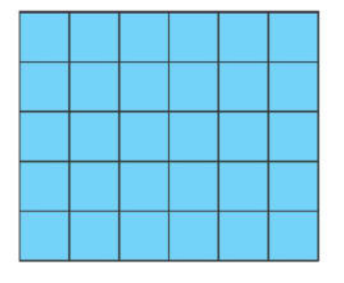
5 x 4 = 20 ☐

k



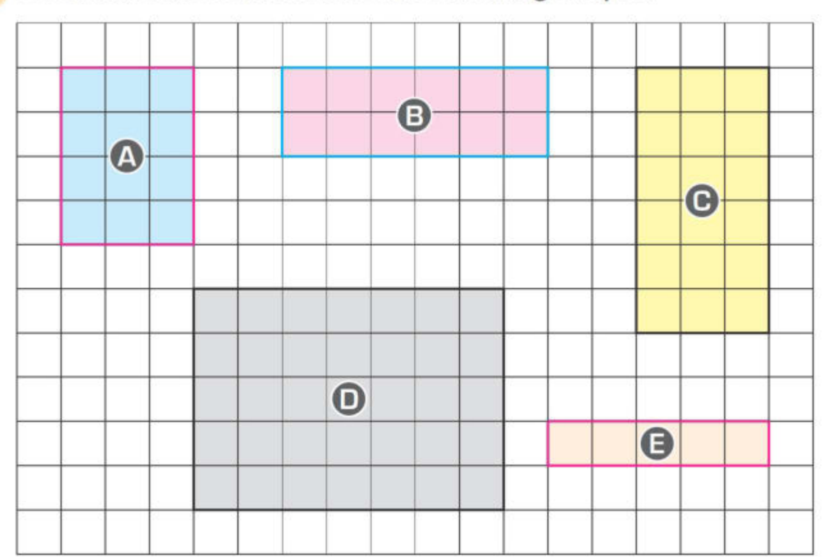
6 x 4 = 24 ☐

l



5 x 6 = 30 ☐

3 Determine the total area of the following shapes:



Area of shape A	3 x 4 = 12	☐
Area of shape B	2 x 6 = 12	☐
Area of shape C	6 x 3 = 18	☐
Area of shape D	5 x 7 = 35	☐
Area of shape E	1 x 5 = 5	☐

		A		B		C		D		E
The total area	=	12	+	12	+	18	+	35	+	5
	=	82								

Accumulative Assessment 17 up to Lesson 3

Chapter 4

First: Choose the correct answer:

a Nine thousand and ninety = ... (9,090 or 90,090 or 900,090)

b The **rhombus** has .... angles. (3 or 4 or 5)

c An hour = ... minutes (15 or 60 or 30)

d 5 x 4 = ... (5 + 5 + 5 + 5 + 5 or 4 + 4 + 4 + 4 or 10 + 10)

e The **largest** 6-digit number is .... (999,999 or 987,654 or 900,000)

Second: Complete the following:

a 5 Tens + 45 Thousands + 5 Hundreds = 45,550

b The **pentagon** has 5 sides.

c 20 mm = 2 cm

d In the **square**, all angles are equal in measure.

e 27 , 36 , 45 , 54 , 63 , 72 , 81

Third: Answer the following:

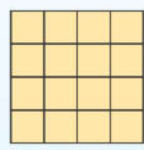
a Complete using (< , = or >):

❶ 6 x 7 > 5 x 8 ❷ 2 hours > 100 minutes

❸ 7,856 > 7,586 ❹ 20 cm > 20 mm

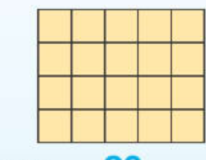
b Find the area of each shape:

❶



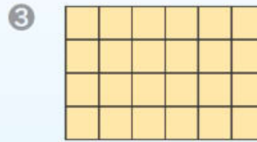
Area = 16 square units





Area = 20 square units





Area = 24 square units



Lessons 4&5 Rectangles with Equal Area, Area Using Models

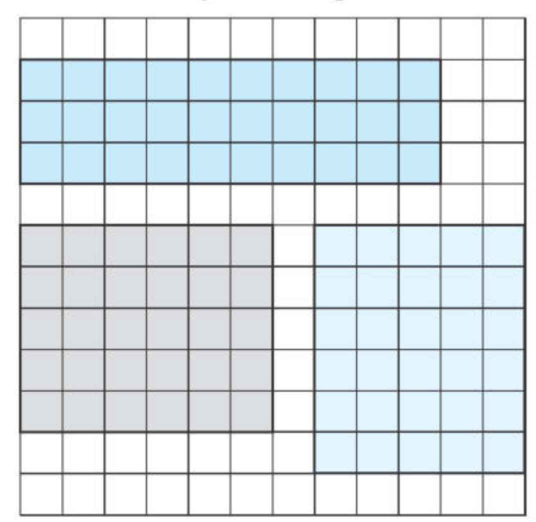
1 On the grid below, draw and label as many rectangles as you can with the given area. Then write equations that match your rectangles.

a 30 square units

30 = 3 X 10

30 = 5 X 6

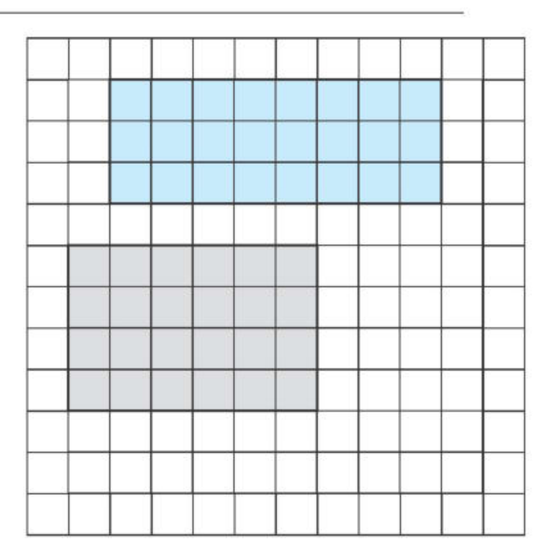
30 = 6 X 5

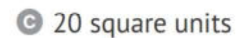


b 24 square units

24 = 3 X 8

24 = 4 X 6



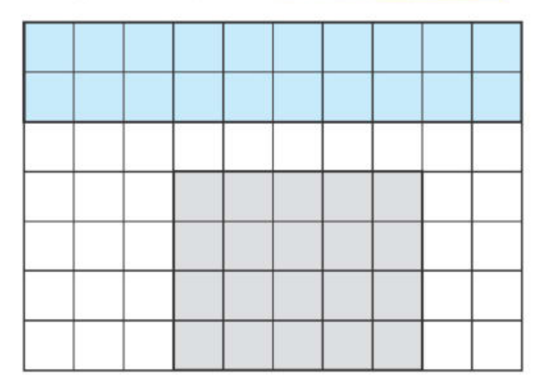


ⓒ 20 square units



20 = 2 X 10

20 = 4 X 5

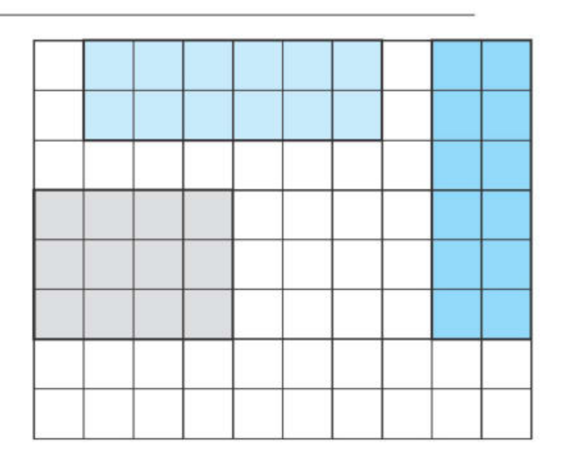


ⓓ 12 square units

12 = 2 X 6

12 = 3 X 4

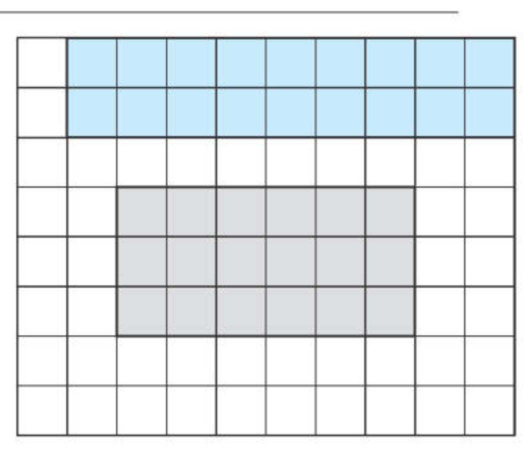
12 = 6 X 2



ⓔ 18 square units

18 = 2 X 9

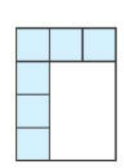
18 = 3 X 6





2 Find the area of each shape:

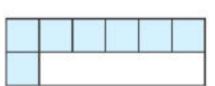
a



Area = 4 X 3

= 12 square units

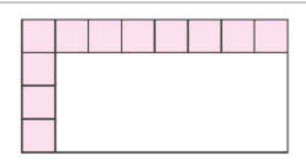
b



Area = 2 X 6

= 12 square units

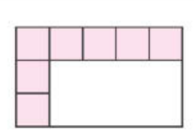
c



Area = 4 X 8

= 32 square units

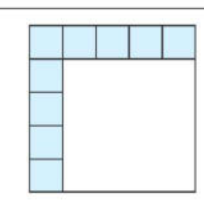
d



Area = 3 X 5

= 15 square units

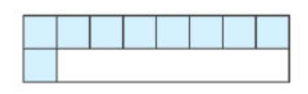
e



Area = 5 X 5

= 25 square units

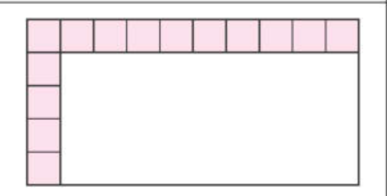
f



Area = 2 X 8

= 16 square units

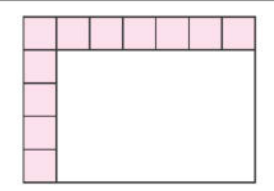
g



Area = 5 X 10

= 50 square units

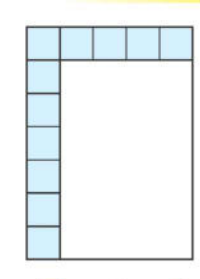
h



Area = 5 X 7

= 35 square units

i



Area = 7 X 8

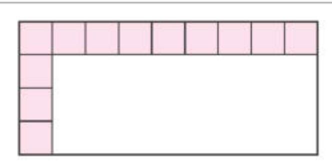
= 56 square units

j

Area = 7 X 5

= 35 square units

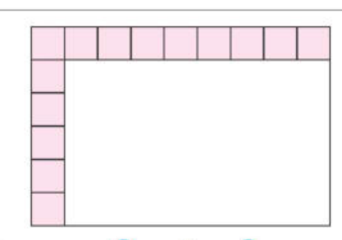
k



Area = 4 X 9

= 36 square units

l

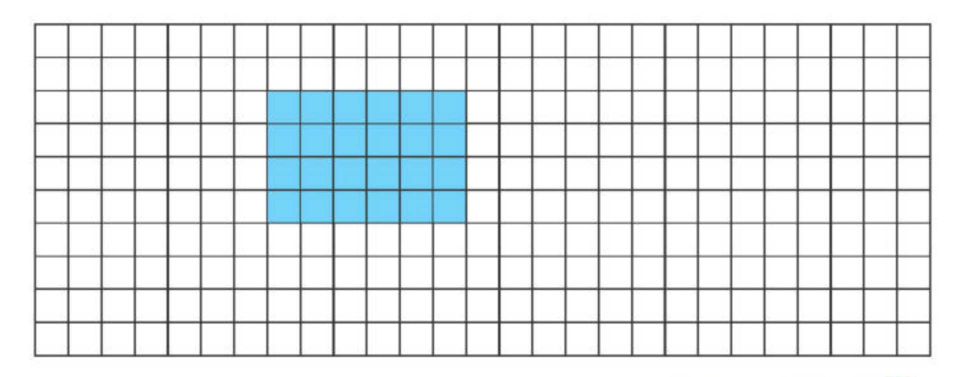


Area = 6 X 9

= 54 square units

3 Youssef loves watermelon and wants to plant it in his garden. Watermelon needs 1 square unit of space. He would like the garden to have 4 rows with 6 square units in each row. How many watermelons can Youssef fit in his garden? What is the area of his garden in square units?

4 x 6 = 24



Accumulative Assessment 18 up to Lesson 5

Chapter 4

First: Choose the correct answer:

a) 8 + 8 + 8 = ... (4 X 6 or 3 + 8 or 8 X 8)

b) 58,000 + 158 = ... (5,858 or 580,158 or 58,158)

c) The **hexagon** has .... sides. (5 or 6 or 7)

d) 9 x .... = 9 (0 or 1 or 9)

e) The **value** of the digit 4 in 2**4**,987 is .... (40 or 400 or 4,000)

Second: Complete the following:

a) The **place value** of the digit 3 in 20**3** is ....Ones.... .

b) 8 Ones + 63 Thousands + 6 Tens = ...63,068....

c) 6 x 3 = 3 x ....6....

d) 7 x 3 = ...7.... + ...7.... + ...7....

e) The **factors** of the number **8** are ....1...., ...2...., ...4...., and ....8.... .

Third: Answer the following:

a) Arrange the following numbers in a **descending** order:

25,402 , 25,204 , 25,024 , 25,420 , 25,240

- ....25,420.... , ...25,402.... , ...25,240.... , ...25,204.... , ...25,024....

b) Find the result:

1. 2 x 3 = ...6....
2. 24 ÷ 3 = ...8....
3. 8 × 8 = ...64....
4. 18 − 9 = ...9....

c) Find the area of the opposite shape.

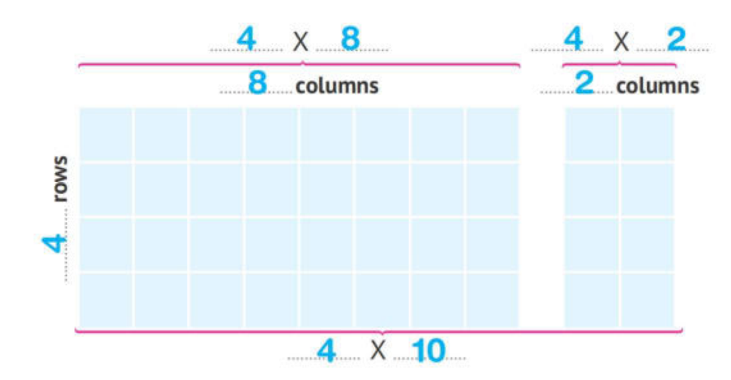


Area = ...4.... x ....7....

= ....28.... square units

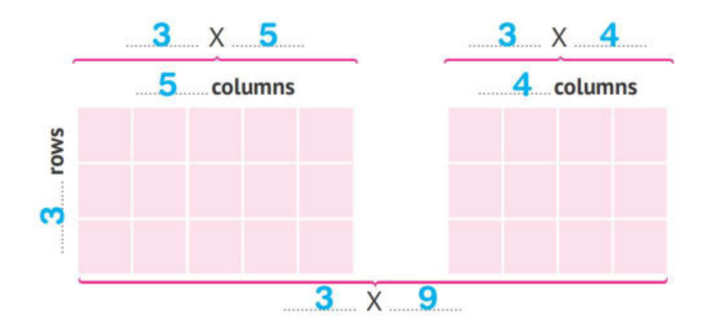
Lessons 6&7 Area by Splitting Arrays – Distributive Property on Multiplication

1 Complete using the **Distributive Property**:



ⓐ 4 X 10 = (4 X 8) + (4 X 2)

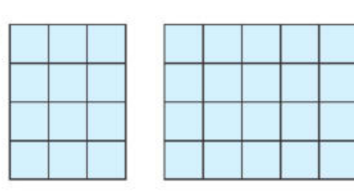
= 32 + 8 = 40



ⓑ 3 X 9 = (3 X 5) + (3 X 4)

= 15 + 12 = 27

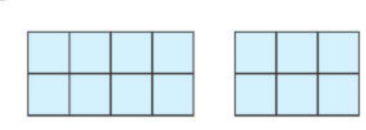
c



(4 X 3) + (4 X 5)

= 12 + 20 = 32

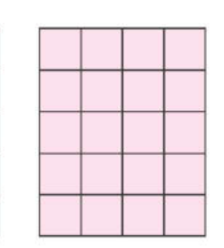
d



(2 X 4) + (2 X 3)

= 8 + 6 = 14

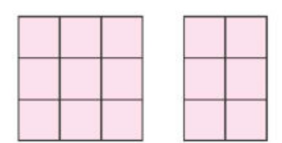
e



(5 X 2) + (5 X 4)

= 10 + 20 = 30

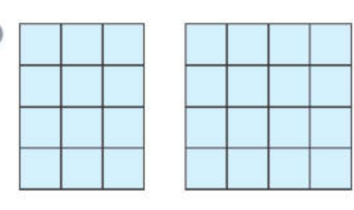
f



(3 X 3) + (3 X 2)

= 9 + 6 = 15

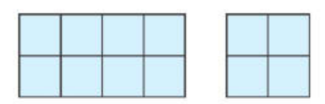
g



(4 X 3) + (4 X 4)

= 12 + 16 = 28

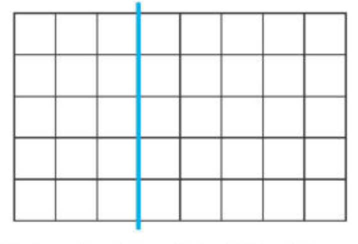
h



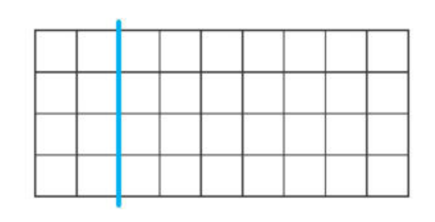
(2 X 4) + (2 X 2)

= 8 + 4 = 12

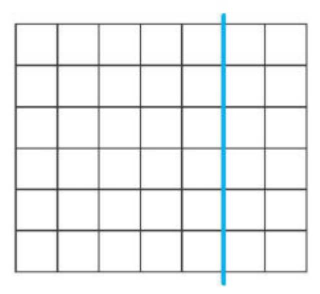
2 **Divide the following arrays according to the Distributive Property:**



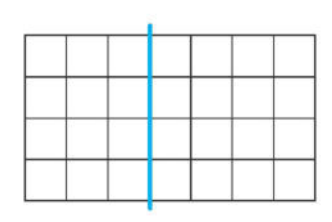
ⓐ 5 x 8 = (5 x 3) + (5 x 5)



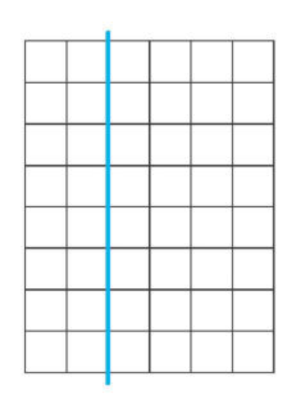
ⓑ 4 x 9 = (4 x 2) + (4 x 7)



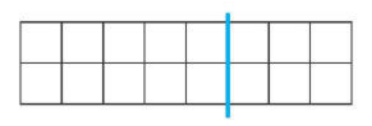
ⓒ 6 x 7 = (6 x 5) + (6 x 2)



ⓓ 4 x 7 = (4 x 3) + (4 x 4)

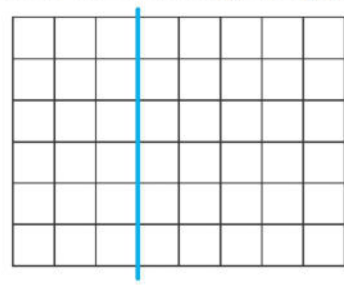


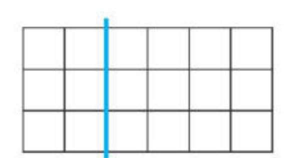
ⓔ 8 x 6 = (8 x 2) + (8 x 4)

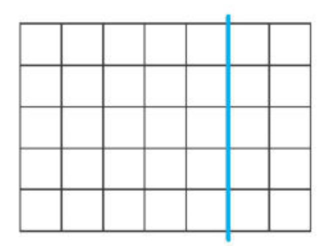


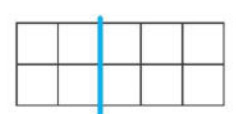
ⓕ 2 x 8 = (2 x 5) + (2 x 3)

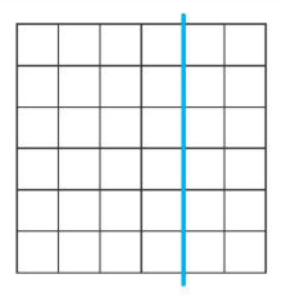
3 Divide the following arrays, then use the Distributive Property:
(There is more than one answer.)

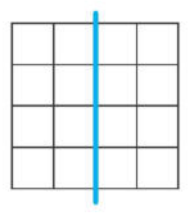
a

(6 X 3) + (6 X 5)
= 18 + 30 = 48

b

(3 X 2) + (3 X 4)
= 6 + 12 = 18

c

(5 X 5) + (5 X 2)
= 25 + 10 = 35

d

(2 X 2) + (2 X 3)
= 4 + 6 = 12

e

(6 X 2) + (6 X 4)
= 12 + 24 = 36

f

(4 X 2) + (4 X 2)
= 8 + 8 = 16

4 Complete the following:

a) 4 x 8 = (4 x 5) + (4 x 3) = 20 + 12 = 32

b) 5 x 9 = (5 x 5) + (5 x 4) = 25 + 20 = 45

c) 6 x 6 = (6 x 4) + (6 x 2) = 24 + 12 = 36

d) 3 x 8 = (3 x 5) + (3 x 3) = 15 + 9 = 24

e) 7 x 6 = (7 x 2) + (7 x 4) = 14 + 28 = 42

f) 8 x 7 = (8 x 3) + (8 x 4) = 24 + 32 = 56

g) 6 x 9 = (6 x 4) + (6 x 5) = 24 + 30 = 54

h) 3 x 7 = (3 x 4) + (3 x 3) = 12 + 9 = 21

i) 4 x 8 = (4 x 3) + (4 x 5) = 12 + 20 = 32

5 Complete the following: (As in the example):

Ex. 8 X 17 = 8 X (10 + 7) = 8 X 10 + 8 X 7 = 80 + 56 = 136

a) 7 x 13 = 7 x (10 + 3) = (7 x 10) + (7 x 3)

= 70 + 21 = 91

b) 4 x 12 = 4 x (10 + 2) = 4 x 10 + 4 x 2

= 40 + 8 = 48

c) 9 x 13 = 9 x (10 + 3) = 9 x 10 + 9 x 3

= 90 + 27 = 117

d) 8 x 15 = 8 x (10 + 5) = 8 x 10 + 8 x 5

= 80 + 40 = 120

Accumulative Assessment 19 up to Lesson 7

Chapter 4

First: Choose the correct answer:

a) Nineteen thousand, nine hundred and nine = ...

(19,909 or 90,909 or 19,990)

b) 700 + 0 + 0 + 7 = ... (700,007 or 7,007 or 707)

c) 7 + 7 + 7 + 7 + 7 = ... (7 x 7 or 7 x 5 or 7 + 5)

d) 8 x 2 = ... (2 + 2 or 4+4+4+4 or 8 X 8)

e) The **value** of the digit 8 in 30**8**,964 is ....

(800,000 or 80,000 or 8,000)

Second: Complete the following:

a) 

b) 6 x 9 = (6 x 5) + (6 x 4)

c) 7 x 6 = 6 x 7

d) The number 57,000 comes just **after** 56,999 .

e) 700 Thousands + 2 Hundreds + 108 Tens = 701,280

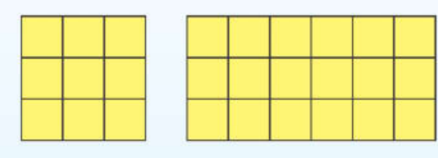
Third: Answer the following:

a) Arrange the following numbers in an **ascending** order:

75,050 , 75,005 , 75,500 , 75,505 , 75,055

• 75,005 , 75,050 , 75,055 , 75,500 , 75,505

b) Complete using the **Distributive Property**:



(3 X 9) = (3 X 3) + (3 X 6)

= 9 + 18 = 27



1 Write the perimeter of the given figure:

....

....

....

....

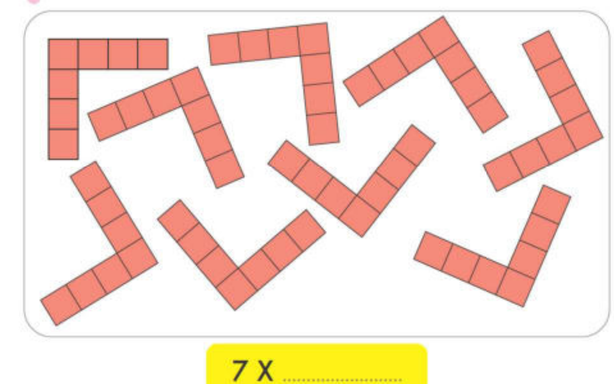
6cm

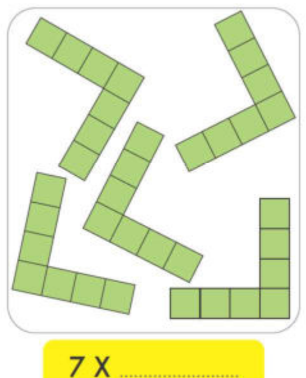
5cm

4cm

---

2 Write operations about the picture.





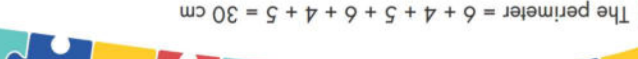
7 X ....

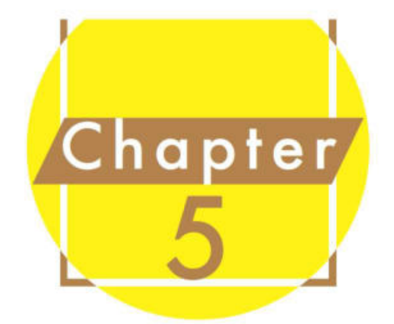
7 X ....

7 X .... = (7 X ....) + (7 X ....)

= .... + ... = ...

Answers

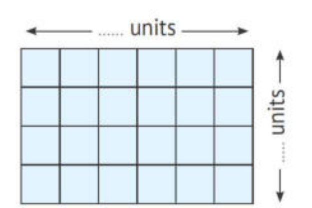




Lesson 1 Perimeter of Polygons

1 **Find the perimeter of each shape:**

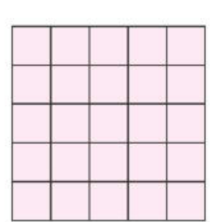
ⓐ



Perimeter = 6 + 4 + 6 + 4

= 20 units

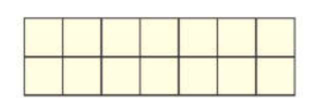
ⓑ



Perimeter = 5 + 5 + 5 + 5

= 20 units

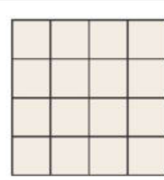
ⓒ



Perimeter = 7 + 2 + 7 + 2

= 18 units

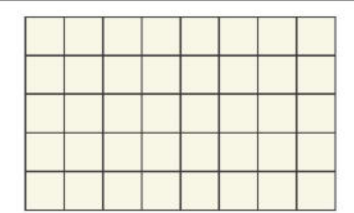
ⓓ



Perimeter = 4 + 4 + 4 + 4

= 16 units

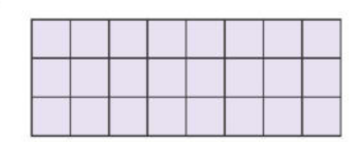
ⓔ



Perimeter = 8 + 5 + 8 + 5

= 26 units

ⓕ

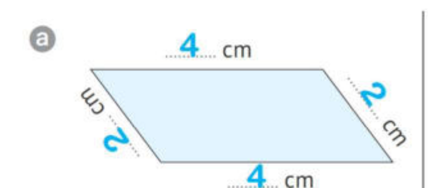


Perimeter = 8 + 3 + 8 + 2

= 22 units

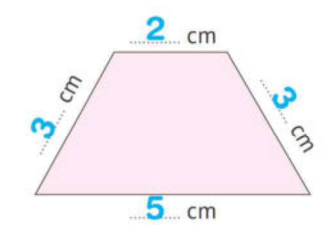
2 **Use your ruler to measure each of the side lengths of the following quadrilaterals, then find the perimeter:**

a



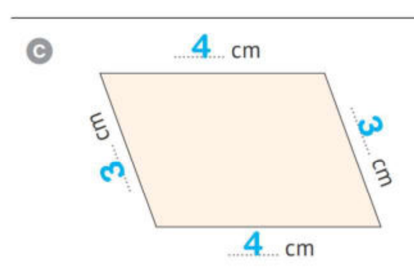
Perimeter
= 4 + 2 + 4 + 2
= 12 cm

b



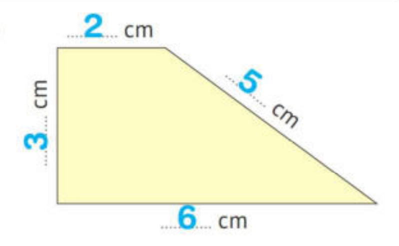
Perimeter
= 5 + 3 + 3 + 2
= 13 cm

c



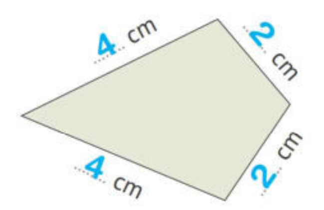
Perimeter
= 4 + 3 + 4 + 3
= 14 cm

d



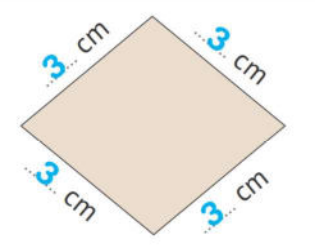
Perimeter
= 3 + 2 + 5 + 6
= 16 cm

e

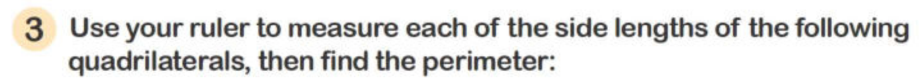


Perimeter
= 4 + 4 + 2 + 2
= 12 cm

f



Perimeter
= 3 + 3 + 3 + 3
= 12 cm



3 **Use your ruler to measure each of the side lengths of the following quadrilaterals, then find the perimeter:**

ⓐ Perimeter

= 6 + 3 + 6 + 3

= 18 cm



ⓑ Perimeter

= 6 + 2 + 6 + 2

= 16 cm

ⓒ Perimeter

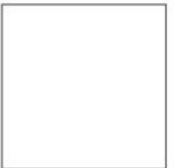
= 6 + 5 + 6 + 5

= 22 cm

ⓓ Perimeter

= 3 + 3 + 3 + 3

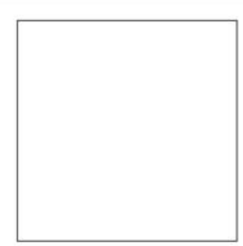
= 12 cm



ⓔ Perimeter

= 4 + 4 + 4 + 4

= 16 cm



Accumulative Assessment 20 up to Lesson 1

Chapter 5

First: Choose the correct answer:

a The **value** of the digit 7 in 25,**7**48 is ....

(700,000 or 7,000 or 700)

b The number of sides of the **pentagon** is .... (4 or 5 or 6)

c 8 + 8 + 8 = ... (8 + 3 or 6 x 4 or 8 x 8)

d The number that comes just **before** 200,100 is ....

(200,000 or 100,100 or 200,099)

e 2 m = ... cm (20 or 200 or 2,000)

Second: Complete the following:

a 74 Thousands + 5 Ones + 7 Tens + 3 Hundreds = 74,375

b 120 minutes = 2 hour(s)

c 8 x 5 = 8 + 8 + 8 + 8 + 8

d In the **rhombus**, all sides are equal .

e 36 ÷ 9 = 4

Third: Answer the following:

a Find the perimeter of the opposite figure:

Perimeter

= 3 + 7 + 3 + 7 = 20 length units

b Write the time shown on the clock:

1. 25 past 2
2. 11:15 — Quarter past 11

c Write down the name of each shape:

1. Parallelogram
2. Kite
3. Rectangle
4. Trapezoid



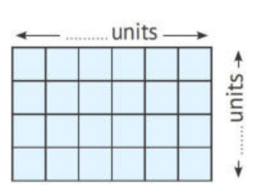
Lessons 2–4 Perimeter and Area – Area Using the Dimensions – Area Using Different Strategies

1 **Find the area and perimeter of each shape:**

a) Area = 4 x 6 = 24 square units

Perimeter = 4 + 6 + 4 + 6

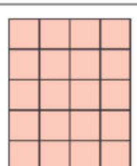
= 20 length units



b) Area = 5 x 4 = 20 square units

Perimeter = 4 + 5 + 4 + 5

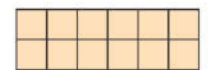
= 18 length units



c) Area = 2 x 6 = 12 square units

Perimeter = 2 + 6 + 2 + 6

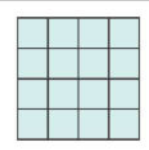
= 16 length units



d) Area = 4 x 4 = 16 square units

Perimeter = 4 + 4 + 4 + 4

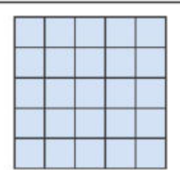
= 16 length units



e) Area = 5 x 5 = 25 square units

Perimeter = 5 + 5 + 5 + 5

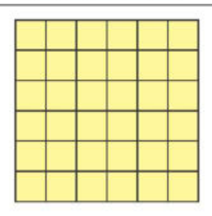
= 20 length units



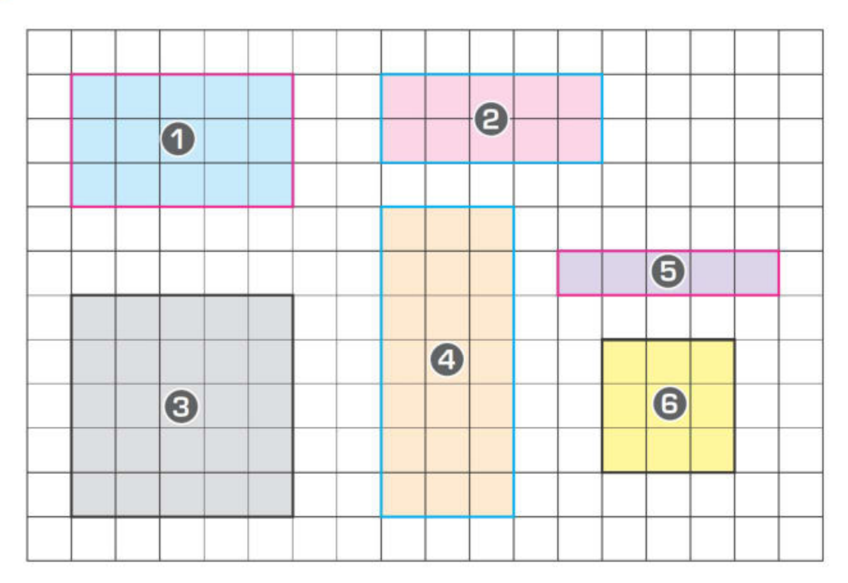
f) Area = 6 x 6 = 36 square units

Perimeter = 6 + 6 + 6 + 6

= 24 length units



2 Look at the following grid, then complete the table:



Shape	Perimeter	Area
1	3 + 5 + 3 + 5 = 16 length units	3 X 5 = 15 square units
2	2 + 5 + 2 + 5 = 14 length units	2 X 5 = 10 square units
3	5 + 5 + 5 + 5 = 20 length units	5 X 5 = 25 square units
4	7 + 3 + 7 + 3 = 20 length units	7 X 3 = 21 square units
5	1 + 5 + 1 + 5 = 12 length units	1 X 5 = 5 square units
6	3 + 3 + 3 + 3 = 12 length units	3 X 3 = 9 square units

3 **Find the area of each shape using two different strategies:**

	Shape	First Strategy	Second Strategy
a		4 + 4 + 4 = 12 Area = 12 square units	3 X 4 = 12 Area = 12 square units
b		4 + 4 + 4 + 4 Area = 16 square units	4 X 4 = 16 Area = 16 square units
c		4 + 4 = 8 Area = 8 square units	2 X 4 = 8 Area = 8 square units
d		3 X 3 = 9 Area = 9 square units	3 + 3 + 3 = 9 Area = 9 square units

	Shape	First Strategy	Second Strategy
e	4 cm, 3 cm	4 X 3 = 12 Area = 12 square cm	3 + 3 + 3 + 3 = 12 Area = 12 square cm
f	4 cm, 2 cm	4 X 2 = 8 Area = 8 square cm	2 + 2 + 2 + 2 = 8 Area = 8 square cm
g	2 cm, 2 cm	2 X 2 = 4 Area = 4 square cm	2 + 2 = 4 Area = 4 square cm
h	3 cm, 3 cm	3 X 3 = 9 Area = 9 square cm	3 + 3 + 3 = 9 Area = 9 square cm

4 **Find the area of each of the following rectangles:**

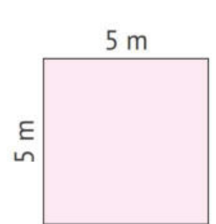
ⓐ



Area = 7 x 5

= 35 square m

ⓑ



Area = 5 x 5

= 25 square m

ⓒ

9 cm

4 cm

Area = 9 x 4

= 36 square cm

ⓓ

7 cm

7 cm

Area = 7 x 7

= 49 square cm

ⓔ

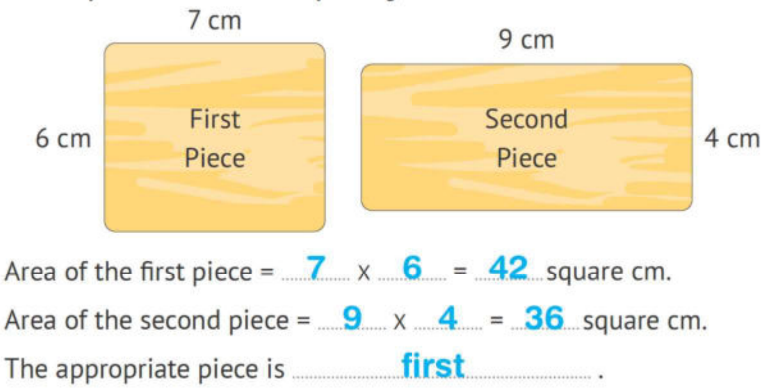
8 m

3 m

Area = 8 x 3

= 24 square m

5 **Ahmed has two pieces of paper as shown. He wants to use one of them to draw a rectangle whose area is 40 square centimeters. Which piece is used? Explain your answer.**

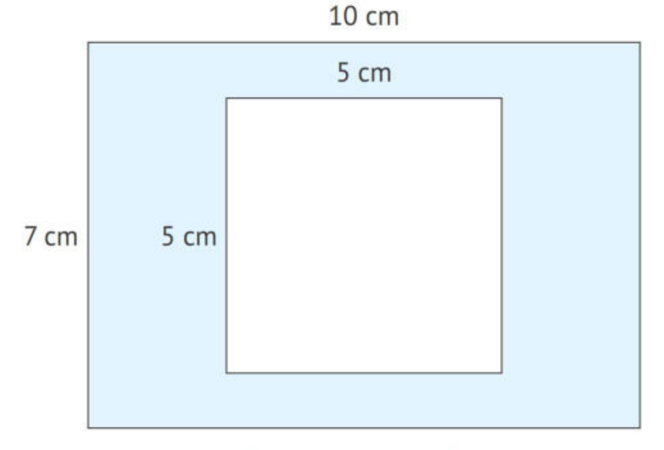


Area of the first piece = 7 x 6 = 42 square cm.

Area of the second piece = 9 x 4 = 36 square cm.

The appropriate piece is first .

6 **Hussam has a piece of paper in the shape of a rectangle, 10 cm long and 7 cm wide. From it, he cut a square piece with a side length of 5 cm. What is the area of the remainder?**



Area of the rectangle = 10 x 7 = 70 square cm.

Area of the square = 5 x 5 = 25 square cm.

Area of the remaining part = 70 - 25 = 45 square cm.

Accumulative Assessment 21 up to Lesson 4

Chapter 5

First: Choose the correct answer:

a) Two hundred twenty thousand and two **in standard form** = ...

(222,000 or 220,200 or 220,002)

b) 5 + 5 + 5 + 5 + 5 = ... (5 + 5 or 5 x 5 or 5 + 6)

c) 70 Thousands + 70 Tens = ... (70,700 or 70,070 or 7,070)

d) ...... x ...... = (3 x 5) + (3 x 2). (3 x 3 or 5 x 2 or 3 x 7)

e) The **smallest** 5-digit number is .... (10,000 or 99,999 or 10,234)

Second: Complete the following:

a) 9 x 3 = ..3.. x 9

b) The number that comes just **before** 35,000 is ....34,999.... .

c) 23,230 = 230 + 23,000

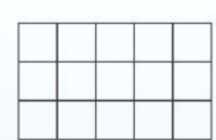
d) All sides are **equal in length** in ....square.... and rhombus.

e) The time shown on the opposite clock is ....5 past 12.... . 12:05

Third: Answer the following:

a) **Find the area and perimeter of each of the following:**

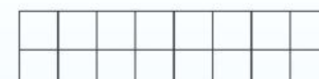




Area = 3 x 5 = 15 square units

Perimeter = ...16.... length units

❷



Area = ...16.... square units

Perimeter = ...20.... length units

b) **Arrange the following numbers in a descending order:**

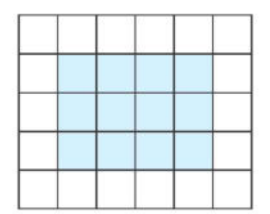
25,250 , 25,025 , 25,205 , 25,502 , 25,052

• 25,502 , 25,250 , 25,205 , 25,052 , 25,025

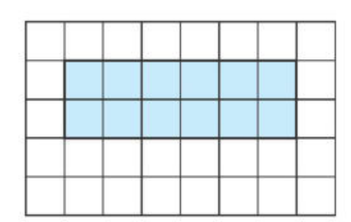
Lessons 5&6 Different Perimeters for the Same Area – Different Areas for the Same Perimeter

1 **Draw a rectangle with the same area as the given rectangle but with different perimeter:**

ⓐ

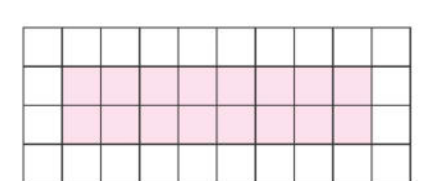


Area = 12 square units
Perimeter = 14 length units

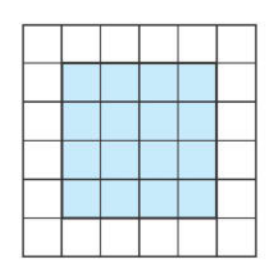


Area = 12 square units
Perimeter = 16 length units

ⓑ

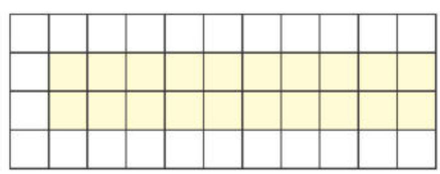


Area = 16 square units
Perimeter = 20 length units

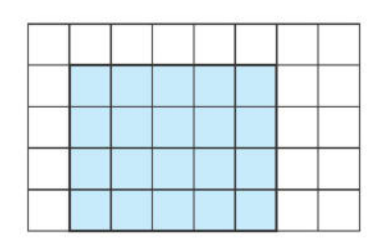


Area = 16 square units
Perimeter = 16 length units



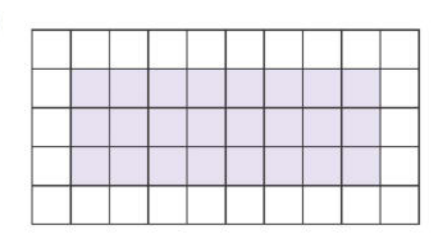


Area = 20 square units
Perimeter = 24 length units



Area = 20 square units
Perimeter = 18 length units

ⓓ

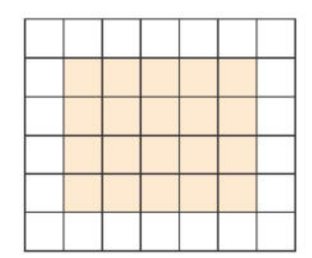


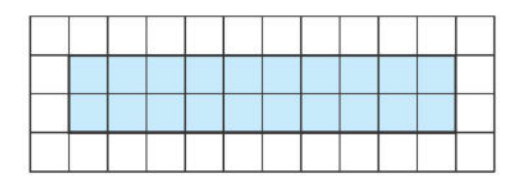
Area = ...24...... square units
Perimeter = ...22...... length units

Area = ...24...... square units
Perimeter = ...20...... length units

ⓔ

Area = ...20...... square units
Perimeter = ...18...... length units

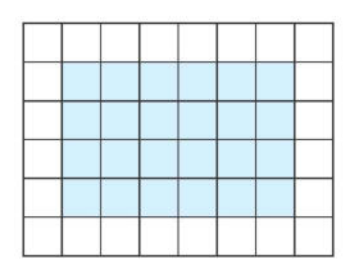




Area = ...20...... square units
Perimeter = ...24...... length units

2 **Draw a rectangle with the same perimeter as the given rectangle but with different area:**

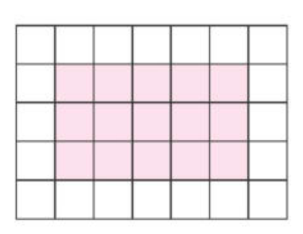
ⓐ



Area = 24 square units
Perimeter = 20 length units

Area = 25 square units
Perimeter = 20 length units

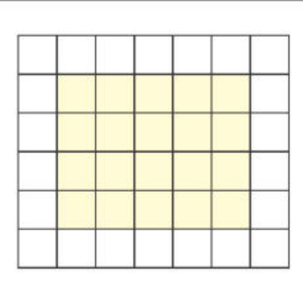
ⓑ



Area = 15 square units
Perimeter = 16 length units

Area = 16 square units
Perimeter = 16 length units

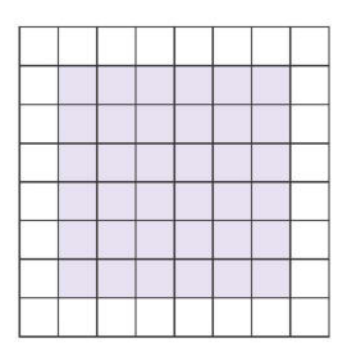
ⓒ



Area = 20 square units
Perimeter = 18 length units

Area = 18 square units
Perimeter = 18 length units

d

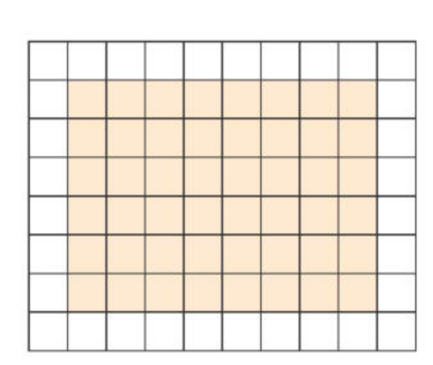


Area = 36 square units
Perimeter = 24 length units

Area = 32 square units
Perimeter = 24 length units

---

e

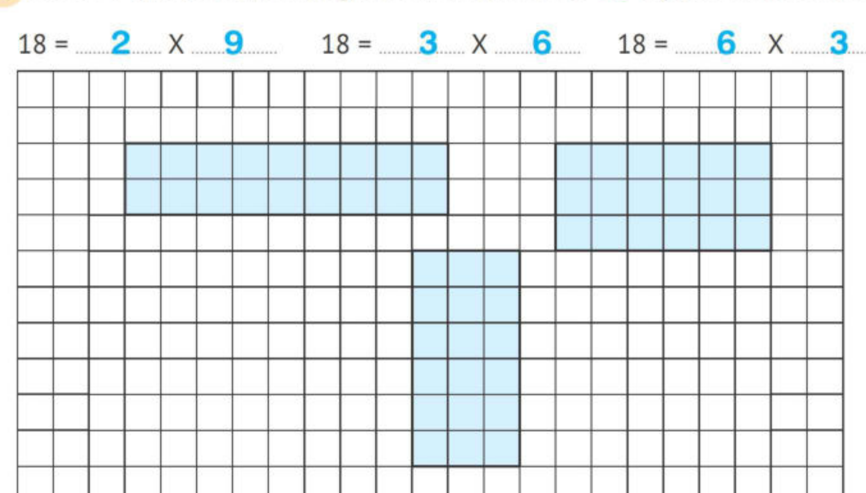


Area = 48 square units
Perimeter = 28 length units

Area = 45 square units
Perimeter = 28 length units

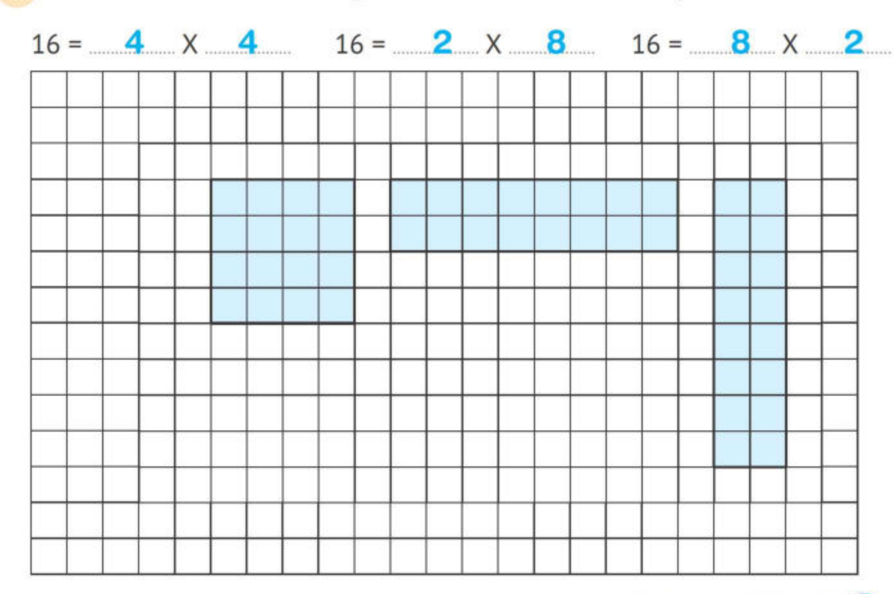
3 **Draw 3 different rectangles with an area of 18 square units each:**

18 = 2 X 9   18 = 3 X 6   18 = 6 X 3

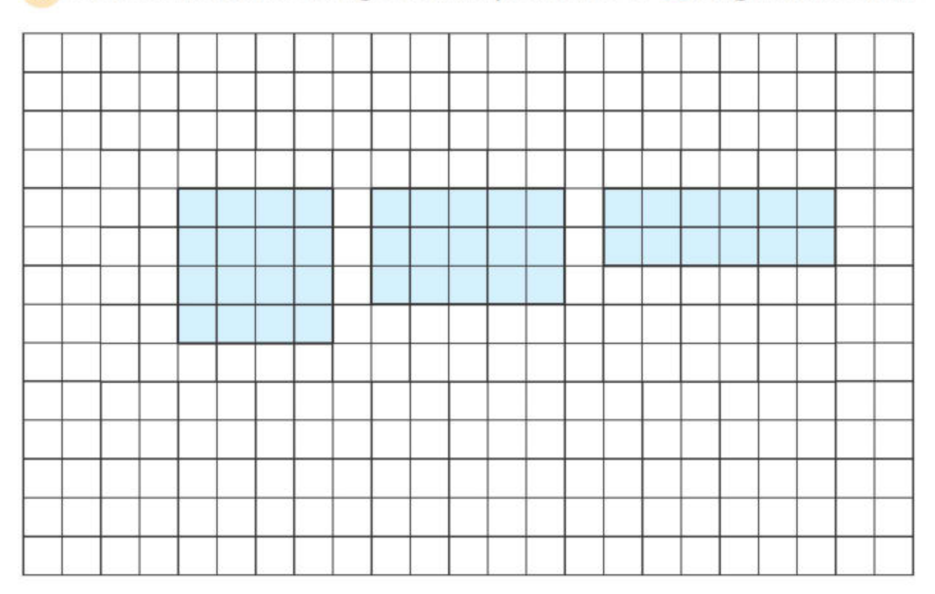


4 **Draw 3 different rectangles with an area of 16 square units each:**

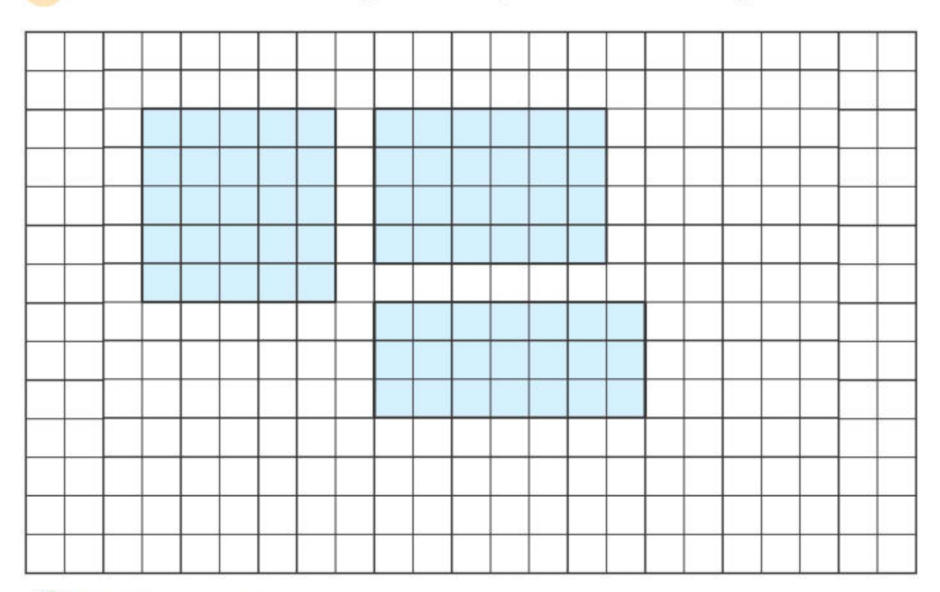
16 = 4 X 4   16 = 2 X 8   16 = 8 X 2



5 Draw 3 different rectangles with a perimeter of 16 length units each:



6 Draw 3 different rectangles with a perimeter of 20 length units each:



Accumulative Assessment 22 up to Lesson 6

Chapter 5

First: Choose the correct answer:

a The **value** of the digit 8 in 35,**8**96 is .... (8,000 or 800 or 80)

b The .... has **5** sides. (triangle or pentagon or hexagon)

c 420 + 42 = ... (42,042 or 4,242 or 462)

d 3 x 5 = ... (3 + 3 + 3 + 3 or 5 + 5 + 5 or 3 + 5)

e 8 x 4 = ... (4 x 8 or 8 + 4 or 8 + 8 + 8)

Second: Complete the following:

a 7 x ..8.. = (..7.. x 4) + (..7.. x 4)

b 70,020 **(in word form)** = ...Seventy thousand, twenty....

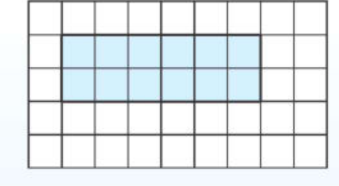
c XO , XXO , XXXO , ..XXXXO.. , ..XXXXXO..

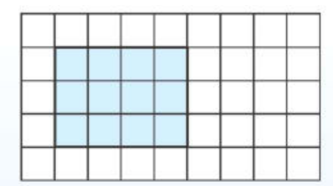
d The **greatest** number formed from the digits 5, 3, 0, 4, and 2 is 54,320.

e 45 ÷ ..9.. = 5

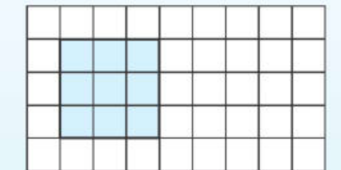
Third: Complete the following:

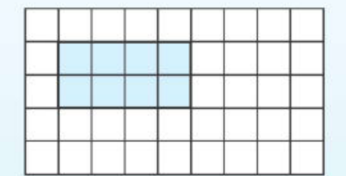
a Draw 2 different rectangles with an area of **12** square units:





b Draw 2 different rectangles with a perimeter of **12** length units:







Lesson 7 Applications on Perimeter and Area



1 A farmer is building a fence around his garden. If the garden is 8 **meters** long and 3 **meters** wide, how much fencing does he need to buy?

8 + 3 + 8 + 3 = 22 meters



2 Each side of a square patch of grass is 5 **meters** long.

What is the patch's area?

5 X 5 = 25 square meters



3 The surface of a rectangular table is 4 **m** long

and 3 **m** wide. What is its area?

4 X 3 = 12 square meters



4 The surface of an office desk is 2 **m** wide

and 3 **m** long. What is its perimeter?

3 + 2 + 3 + 2 = 10 m



5 A rectangular goat farm is 10 **meters** long

and 7 **meters** wide. What is its area?

10 X 7 = 70 square meters

6 Each side of a square piece of paper is **9 cm** long. What is the piece of paper's area?



9 X 9 = 81 square cm

7 Mariam wants to tile the kitchen floor. If the floor is **4 meters** long and **2 meters** wide. What is the area of the kitchen?



4 X 2 = 8 square meters

8 A book has a length of **20 cm** and a width of **15 cm.** What is the perimeter of the book ?



20 + 15 + 20 + 15 = 70 cm

9 Before soccer practice, Adam warms up by jogging around the entire soccer field. The field measures **80 meters** by **120 meters**. How many meters did Adam jog in all?



80 + 120 + 80 + 120 = 400 m

10 Rana has some brownies. The length of each brownie is **7 cm** and the width is **5 cm**. Find the area of the brownies.





7 X 5 = 35 square cm

Accumulative Assessment 23 up to Lesson 7

Chapter 5

First: Choose the correct answer:

a) 9 Ones + 3 Tens + 7 Hundreds + 15 Thousands is ....
(93,715 or (15,739) or 150,739)

b) The **greatest** 5-different-digit number is ....
(90,000 or (98,765) or 10,234)

c) 3 + 3 + 3 + 3 + 3 + 3 = ... (3 x 3 or 6 + 3 or (6 x 3))

d) (4 x 3) + (4 x 3) = ... (4 x 9 or 16 x 3 or (4 x 6))

e) The number **1** has .... **factor(s)**. ((1) or 2 or 3)

Second: Complete the following:

a) The number 52,374 **(in word form)**: Fifty-two thousand, three hundred seventy four

b) The **hexagon** has 6 vertices.

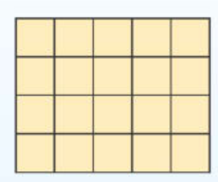
c) The number that comes just **after** 20,099 is 20,100 .

d) The **value** of the digit 0 in 305,124 is 0 .

Third: Complete the following:

a) **Find the area and perimeter of the following figures:**

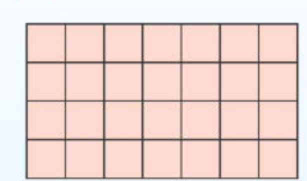




Area = 20 square units

Perimeter = 18 length units



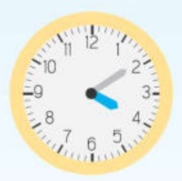


Area = 28 square units

Perimeter = 22 length units

b **Write the time shown on the clock (in words and in digits):**

❶



04:10

10 past 4

❷



10:40

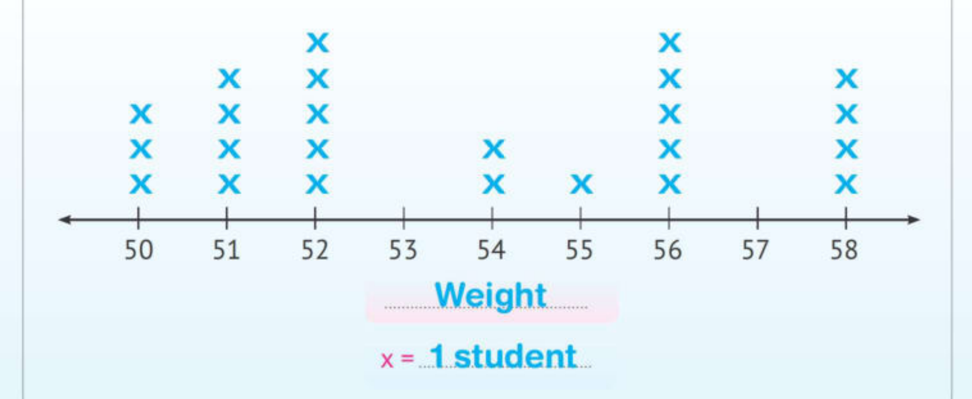
20 to 11

c **The following data shows the weights of 24 students in kilograms:**

Weight	50	51	52	53	54	55	56	57	58
Number of Students	3	4	5	0	2	1	5	0	4

Create a line plot using this data.

Weights of Students

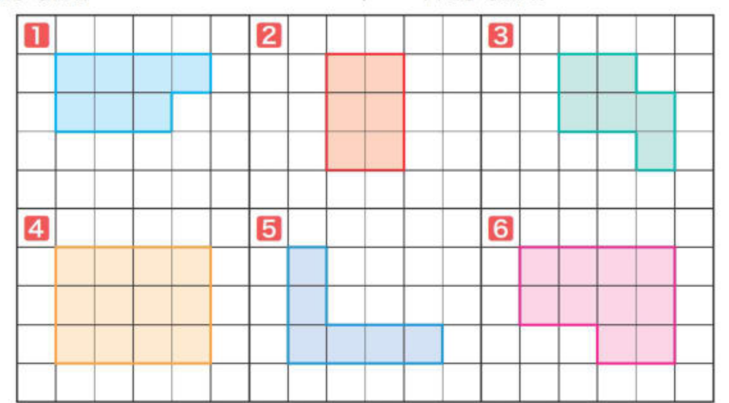


PUZZLE

1 Select the correct answer from a choice of six possibilities:

a I am not a rectangle.
My area is more than 8 squares.
My perimeter is more than 12.
Who an I?

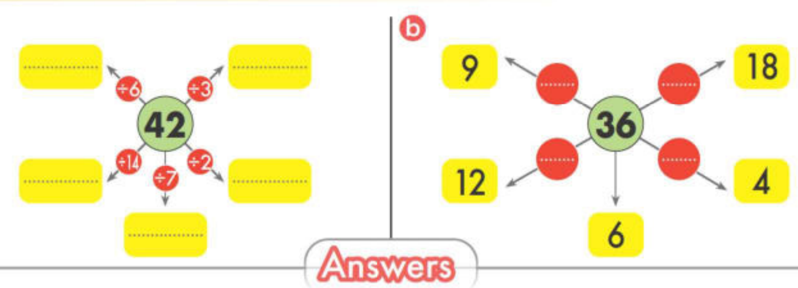
b I have fewer than 7 sides.
My area is less than 10 squares.
My perimeter is less than 12.
Who am I?



2 Fill in the missing numbers and signs. (+ , – , x , ÷):

a

b



Answers

1 a → (6) b → (4)

2 a 42 ÷ 2 = 21 , 42 ÷ 3 = 14 , 42 ÷ 6 = 7 , 42 ÷ 14 = 3 , 42 ÷ 7 = 6

b 36 ÷ 2 = 18 , 36 ÷ 4 = 9 , 36 ÷ 3 = 12 , 36 ÷ 6 = 6 , 36 ÷ 9 = 4



Lesson 1 Patterns of Multiplying by Multiples of 10 + (Lesson 8 – Chapter 5 "Multiplying by Multiples of 10")

1 Find the product:

a) 1 x 40 = 40
b) 8 x 30 = 240
c) 3 x 60 = 180
d) 3 x 50 = 150
e) 5 x 80 = 400
f) 5 x 70 = 350
g) 7 x 90 = 630
h) 7 x 40 = 280
i) 9 x 80 = 720
j) 7 x 70 = 490
k) 8 x 60 = 480
l) 9 x 20 = 180
m) 2 x 50 = 100
n) 2 x 40 = 80
o) 4 x 70 = 280
p) 4 x 60 = 240
q) 6 x 20 = 120
r) 6 x 80 = 480

2 Complete the following:

a) 30 + 30 + 30 + 30 = 4 x 30 = 120
b) 20 + 20 + 20 = 3 x 20 = 60
c) 50 + 50 + 50 + 50 + 50 = 5 x 50 = 250
d) 40 + 40 + 40 + 40 + 40 + 40 + 40 = 7 x 40 = 280
e) 70 + 70 = 2 x 70 = 140
f) 5 x 20 = 20 + 20 + 20 + 20 + 20 = 100
g) 4 x 30 = 30 + 30 + 30 + 30 = 120
h) 3 x 60 = 60 + 60 + 60 = 180
i) 2 x 90 = 90 + 90 = 180
j) 3 x 80 = 80 + 80 + 80 = 240

3 Complete the following:

ⓐ 6 x 10 = 60
ⓑ 8 x 10 = 80
ⓒ 52 x 10 = 520
ⓓ 22 x 10 = 220
ⓔ 16 x 10 = 160
ⓕ 82 x 10 = 820
ⓖ 7 x 10 = 70
ⓗ 4 x 10 = 40
ⓘ 4 x 10 = 40
ⓙ 10 x 10 = 100
ⓚ 86 x 10 = 860
ⓛ 27 x 10 = 270
ⓜ 55 x 10 = 550
ⓝ 74 x 10 = 740

4 Complete the following:

ⓐ 8 x 50 = 8 x 5 x 10 = 40 x 10 = 400
ⓑ 5 x 40 = 5 x 4 x 10 = 20 x 10 = 200
ⓒ 9 x 80 = 9 x 8 x 10 = 72 x 10 = 720
ⓓ 5 x 90 = 5 x 9 x 10 = 45 x 10 = 450
ⓔ 8 x 80 = 8 x 8 x 10 = 64 x 10 = 640
ⓕ 6 x 30 = 6 x 3 x 10 = 18 x 10 = 180
ⓖ 5 x 7 = 5 x 7 x 10 = 35 x 10 = 350
ⓗ 6 x 90 = 6 x 9 x 10 = 54 x 10 = 540
ⓘ 7 x 70 = 7 x 7 x 10 = 49 x 10 = 490

5 Choose the correct answer:

ⓐ 5 x 6 x 10 = ... x 10 (300 or 20 or (30))
ⓑ 7 x 4 x 10 = ... x 10 (280 or 4 or (28))

c .... x 9 x 10 = 36 x 10 (4 or 36 or 360)

d 28 x 10 = 4 x .... x 10 (7 or 280 or 40)

e 35 x 10 = 5 x .... x 10 (70 or 350 or 7)

f 36 x 10 = ... x 6 x 10 (3 or 6 or 36)

g 5 x 8 = ... x 5 (40 or 5 or 8)

h 9 x .... = 6 x 9 (6 or 9 or 54)

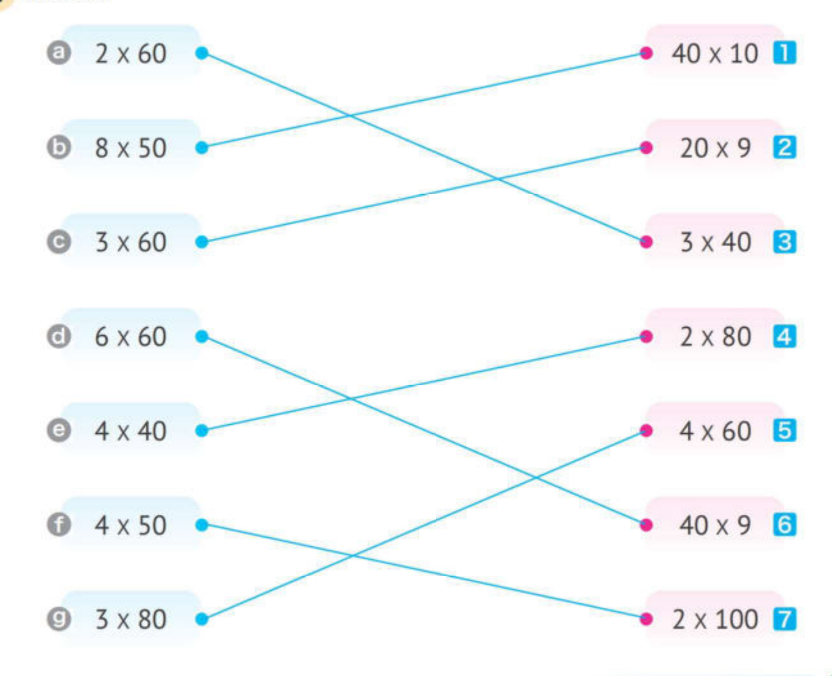
i 8 x 6 = 6 x .... (8 or 6 or 48)

j 5 + 5 + 5 + 5 = 2 x .... (5 or 10 or 4 + 5)

k 6 + 6 + 6 = ... (6 + 3 or 6 x 6 or 9 x 2)

l 6 + 6 + 6 + 6 + 6 = ... (6 x 6 or 3 x 10 or 6 + 5)

6 Match:



7 Find the product:

a) 9 x 30 = 270
b) 9 x 300 = 2,700
c) 90 x 30 = 2,700
d) 90 x 300 = 27,000
e) 900 x 300 = 270,000
f) 8 x 20 = 160
g) 80 x 20 = 1,600
h) 800 x 20 = 16,000
i) 8,000 x 20 = 160,000
j) 6 x 4 = 24
k) 6 x 400 = 2,400
l) 600 x 40 = 24,000
m) 600 x 400 = 240,000
n) 60 x 200 = 12,000
o) 5 x 2 = 10
p) 50 x 20 = 1,000
q) 500 x 200 = 100,000
r) 50 x 2,000 = 100,000

8 Complete the following:

a) 20 x 5 = 100
b) 50 x 300 = 15,000
c) 8,000 x 2 = 16,000
d) 100 x 200 = 20,000
e) 500 x 20 = 10,000
f) 300 x 50 = 15,000
g) 70 x 20 = 1,400
h) 50 x 4 = 200
i) 40 x 200 = 8,000
j) 70 x 300 = 21,000
k) 50 x 20 = 1,000
l) 300 x 60 = 18,000
m) 10 x 400 = 4,000
n) 3 x 900 = 2,700
o) 20 x 500 = 10,000
p) 4 x 60 = 240
q) 500 x 1,000 = 500,000
r) 40 x 800 = 32,000

Accumulative Assessment 24 up to Lesson 1

Chapter 6

First: Choose the correct answer:

a) The **value** of the digit 9 in 8**9**,123 is .... (90,000 or 9,000 or 900)

b) 25,025 = 25 + ... (25 or 250 or 25,000)

c) 4 + 4 + 4 + 4 = ... (4 + 4 or 8 + 2 or 8 x 2)

d) 6 x 6 = ... (6 + 6 + 6 + 6 or 6 x 2 or 9 x 4)

e) The **smallest** number formed from 6 , 7 , 2 , 0 , and 5 is ....

(20,567 or 76,520 or 25,670)

Second: Complete the following:

a) 750 Thousands + 100 Hundreds = 750,000 + 10,000 = 760,000

b) 7 x 14 = (7 x 10) + (7 x 4) = 70 + 28 = 98

c) 6 x 70 = 6 x 7 x 10 = 42 X 10 = 420

d) Twenty thousand and twenty **(in standard form)**: 20,020

e) 80 , 72 , 64 , 56 , 48 , 40 , 32

Third: Complete the following:

a) **Find the product:**

❶ 7 x 50 = 350

❷ 45 ÷ 5 = 9

❷ 8 x 90 = 720

❹ 48 ÷ 8 = 6

b) **Arrange the following numbers in a descending order:**

10,005 , 1,005 , 1,050 , 15,000 , 1,500

• 15,000 , 10,005 , 1,500 , 1,050 , 1,005

c) **Ahmed went to the store 9 times last month.**



He buys 6 eggs each time he goes there.

How many eggs did Ahmed buy last month?

9 x 6 = 54 eggs

Lesson 2 Strategies of Multiplying by 9

1 Complete:

a Find the product:

1 2 X 2 = 4	2 2 X 3 = 6	3 2 X 4 = 8
4 3 X 3 = 9	5 2 X 5 = 10	6 3 X 4 = 12
7 2 X 6 = 12	8 2 X 7 = 14	9 3 X 5 = 15
10 4 X 4 = 16	11 2 X 8 = 16	12 3 X 6 = 18
13 2 X 9 = 18	14 4 X 5 = 20	15 3 X 7 = 21
16 4 X 6 = 24	17 3 X 8 = 24	18 5 X 5 = 25
19 3 X 9 = 27	20 4 X 7 = 28	21 5 X 6 = 30
22 4 X 8 = 32	23 5 X 7 = 35	24 4 X 9 = 36
25 6 X 6 = 36	26 5 X 8 = 40	27 6 X 7 = 42
28 5 X 9 = 45	29 6 X 8 = 48	30 7 X 7 = 49
31 6 X 9 = 54	32 7 X 8 = 56	33 8 X 8 = 64
34 7 X 9 = 63	35 8 X 9 = 72	36 9 X 9 = 81

b Find the product:

1 2 X 2 = 4	2 6 X 2 = 18	3 9 X 4 = 36
4 3 X 2 = 6	5 5 X 4 = 20	6 8 X 5 = 40
7 4 X 2 = 8	8 7 X 3 = 21	9 7 X 6 = 42
10 3 X 3 = 9	11 8 X 3 = 24	12 9 X 5 = 45
13 5 X 2 = 10	14 6 X 4 = 24	15 8 X 6 = 48

16 6 X 2 = 12
17 5 X 5 = 25
18 7 X 7 = 49
19 4 X 3 = 12
20 9 X 3 = 27
21 9 X 6 = 54
22 7 X 2 = 14
23 7 X 4 = 28
24 8 X 7 = 56
25 5 X 3 = 15
26 6 X 5 = 30
27 9 X 7 = 63
28 4 X 4 = 16
29 8 X 4 = 32
30 8 X 8 = 64
31 8 X 2 = 16
32 7 X 5 = 35
33 9 X 8 = 72
34 9 X 2 = 18
35 6 X 6 = 36
36 9 X 9 = 81

2 Complete:

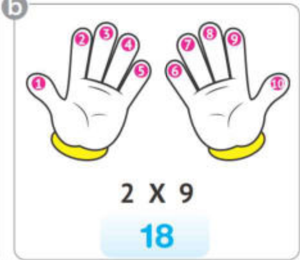
❶ 2 X 2 = 4	❷ 2 X 6 = 12	❸ 2 X 9 = 18	❹ 3 X 9 = 27
❺ 6 X 6 = 36	❻ 9 X 6 = 54	❼ 2 X 3 = 6	❽ 2 X 7 = 14
❾ 4 X 5 = 20	❿ 4 X 7 = 28	⓫ 5 X 8 = 40	⓬ 7 X 8 = 56
⓭ 2 X 4 = 8	⓮ 3 X 5 = 15	⓯ 3 X 7 = 21	⓰ 5 X 6 = 30
⓱ 7 X 6 = 42	⓲ 9 X 7 = 63	⓳ 3 X 3 = 9	⓴ 4 X 4 = 16

21. 4 X 6 = 24	22. 4 X 8 = 32	23. 5 X 9 = 45	24. 8 X 8 = 64
25. 2 X 5 = 10	26. 2 X 8 = 16	27. 6 X 8 = 48	28. 5 X 7 = 35
29. 6 X 7 = 42	30. 9 X 8 = 72	31. 3 X 4 = 12	32. 3 X 6 = 18
33. 5 X 5 = 25	34. 9 X 4 = 36	35. 7 X 7 = 49	36. 9 X 9 = 81
37. 9 X 9 = 81	38. 6 X 8 = 48	39. 8 X 7 = 56	40. 7 X 5 = 35
41. 6 X 6 = 36	42. 4 X 4 = 16	43. 8 X 8 = 64	44. 7 X 7 = 49
45. 9 X 6 = 54	46. 8 X 4 = 32	47. 8 X 6 = 48	48. 5 X 5 = 25

3 Use the **Finger Trick Strategy** to find:

a

4 X 9
36

b

2 X 9
18

c

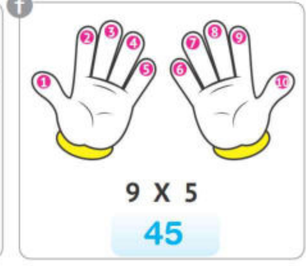
9 X 6
54

d

3 X 9
27

e

8 X 9
72

f

9 X 5
45

g

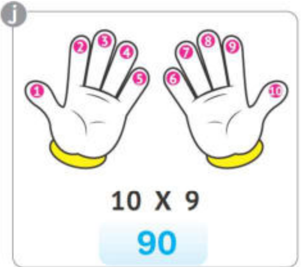
9 X 9
81

h

7 X 9
63

i

9 X 1
9

j

10 X 9
90

4 Use the Ten Facts Strategy to find:

ⓐ 9 X 2



9 X 2 = (10 X 2) - 2 = 20 - 2 = 18

ⓑ 9 X 4



9 X 4 = (10 X 4) - 4 = 40 - 4 = 36

ⓒ 9 X 6



9 X 6 = (10 X 6) - 6 = 60 - 6 = 54

ⓓ 9 X 8



9 X 8 = (10 X 8) - 8 = 80 - 8 = 72

ⓔ **9 X 1**

1	1	1	1	1	1	1	1	1	~~1~~

9 X 1 = (10 X 1) - 1 = 10 - 1 = 9

ⓕ **9 X 3**



3	3	3	3	3	3	3	3	3	~~3~~

9 X 3 = (10 X 3) - 3 = 30 - 3 = 27

ⓖ **9 X 5**

5	5	5	5	5	5	5	5	5	~~5~~

9 X 5 = (10 X 5) - 5 = 50 - 5 = 45

ⓗ **9 X 7**



7	7	7	7	7	7	7	7	7	~~7~~

9 X 7 = (10 X 7) - 7 = 70 - 7 = 63

ⓘ **9 X 9**



9	9	9	9	9	9	9	9	9	~~9~~

9 X 9 = (10 X 9) - 9 = 90 - 9 = 81

5 Choose the correct answer:

a) 5 + 5 + 5 +5 +5 +5 = ... (5 X 5 or 3 X 10 or 6 X 6)

b) 8 X 3 = ... (6 X 4 or 3 + 3 + 3 or 4 X 4)

c) 10 + 10 + 10 + 10 = ... (5 X 4 or 10 X 10 or 5 X 8)

d) 9 + 9 + 9 + 9 = ... (9 X 9 or 3 X 6 or 6 X 6)

e) 6 + 6 + 6 + 6 = ... (6 X 4 or 6 + 4 or 6 + 6)

f) 9 X 7 = (10 X ....) – 7 (10 or 9 or 7)

g) 6 X 3 = ... (3 + 3 + 3 or 6 + 6 + 6 + 6 or 9 + 9)

h) 4 + 4 + 4 + 4 = ... (8 X 4 or 4 + 4 or 4 X 4)

6 Complete:

a) 8 X 3 = 8 + 8 + 8 = 24

b) 6 X 6 = 6 + 6 + 6 + 6 + 6 + 6 = 36

c) 5 X 4 = 10 + 10 = 20

d) 6 X 3 = 2 X 9 = 18

e) 3 X 4 = 2 X 6 = 12

f) 4 X 4 = 2 X 8 = 16

g) 3 X 8 = 4 X 6 = 24

h) 8 + 8 + 8 + 8 = 4 X 8 = 32

i) 6 + 6 + 6 + 6 + 6 = 5 X 6 = 30

j) 9 X 8 = (10 X 8) – 8 = 72

k) 9 X 6 = (10 X 6) – 6 = 54

Accumulative Assessment 25 up to Lesson 2

Chapter 6

First: Choose the correct answer:

a) 9 X .... = (10 X 7) – 7 (6 or 7 or 8)

b) 8 + 8 + 8 + 8 + 8 = ... (8 X 8 or 8 + 5 or 4 X 10)

c) 450 + 45 = ... (45,045 or 495 or 4,545)

d) 750,000 + 15,000 + 40 = ... (751,540 or 765,040 or 750,190)

e) 200 Thousands = ... Tens (200,000 or 20,000 or 2,000)

Second: Complete the following:

a) The number that comes just **before** 20,000 is ....19,999....

b) The **value** of the digit 0 in 23,054 is ....0....

c) (10 X 6) – 6 = ...9.... X 6

d) 8 + 8 + 8 + 8 + 8 + 8 = ...6.... X ....8....

e) Nine hundred thousand and nine **(in standard form)** = ...900,009....

Third: Answer the following:

a) **Find out the result of the following:**

❶ 45 + 67 = ...112....

❷ 98 – 27 = ...71....

❸ 97 – 79 = ...18....

b) **Complete using (< , = or >):**

❶ 5 + 5 + 5 + 5 [<] 5 X 5

❷ 4 + 4 + 4 [=] 2 X 6

❸ 8 X 5 [>] 5 + 5

❹ 9 X 3 [=] 3 X 9

c) Each pen costs 9LE.

How much do 8 pens cost?

....9.... X ....8.... = ...72 LE....



Lesson 3 Facts on Multiplication and Addition

1 Find the result of the following:

ⓐ $7 + 0 =$ 7

ⓑ $0 + 9 =$ 9

ⓒ $6 \times 0 =$ 0

ⓓ $0 \times 4 =$ 0

ⓔ $9 + 1 =$ 10

ⓕ $1 + 8 =$ 9

ⓖ $7 \times 1 =$ 7

ⓗ $1 \times 5 =$ 5

ⓘ $5 \times 8 =$ 40

ⓙ $8 \times 5 =$ 40

ⓚ $6 + 2 =$ 8

ⓛ $2 + 6 =$ 8

ⓜ $5 + 5 =$ 10

ⓝ $9 + 9 =$ 18

ⓞ $2 \times 8 =$ 16

ⓟ $3 \times 2 =$ 6

ⓠ $5 \times 12 = 5 \times (10 + 2) = (5 \times 10) + (5 \times 2) = 50 + 10 = 60$

(Using Distribution Property)

ⓡ $8 \times 13 = 8 \times (10 + 3) = (8 \times 10) + (8 \times 3) = 80 + 24 = 104$

(Using Distribution Property)

ⓢ $(7 \times 4) + (7 \times 6) = 7 \times (4 + 6) = 7 \times 10 = 70$

(Using Distribution Property)

2 Complete the following:

ⓐ 3 + ...0... = 3

ⓑ 0 + ...9... = 9

ⓒ 6 X ...0... = 0

ⓓ ...0... X 4 = 0

ⓔ ...7... X 1 = 7

ⓕ ...1... + 8 = 9

ⓖ 7 X ...1... = 7

ⓗ 1 X ...8... = 8

ⓘ ...3... X 8 = 8 X 3

ⓙ 6 X 5 = ...5... X 6

ⓚ 6 + 4 = ...4... + 6

ⓛ 4 + ...5... = 5 + 4

ⓜ 9 + ...9... = 18

ⓝ ...7... + 7 = 14

ⓞ 2 X ...8... = 16

ⓟ 3 X ...2... = 6

ⓠ 8 + 8 = 2 X ...8...

ⓡ ...4... + ...4... = 4 X 2

ⓢ 7 X 8 = (...7... X 2) + (...7... X 6) = ...14... + ...42... = ...56...

ⓣ 9 X 17 = (...9... X 10) + (...9... X 7) = ...90... + ...63... = ...153...

ⓤ ...4... X ...14... = (4 X 10) + (4 X 4) = ...40... + ...16... = ...56...

ⓥ ...8... X ...10... = (8 X 3) + (8 X 7) = ...24... + ...56... = ...80...

ⓦ ...3... X ...16... = (3 X ...10...) + (3 X ...6...) = 30 + 18 = ...48...

3 Complete using (X or +):

ⓐ 5 X 0 = 0

ⓑ 8 + 0 = 8

ⓒ 0 + 7 = 7

ⓓ 15 X 0 = 0

ⓔ 6 X 1 = 6

ⓕ 1 X 7 = 7

ⓖ 12 + 1 = 13

ⓗ 10 X 1 = 10

ⓘ 1 X 3 = 3

ⓙ 6 + 1 = 7

ⓚ 5 X 3 = 3 X 5

ⓛ 4 + 9 = 9 + 4

ⓜ 9 + 2 = 2 + 9

ⓝ 8 X 3 = 3 X 8

ⓞ 5 X 6 = (5 X 3) + (5 X 3)

4 Choose the correct answer:

ⓐ 5 X .... = 5 (1 or 5 or 0)

ⓑ 7 X .... = 0 (1 or 7 or 0)

ⓒ 4 + ... = 4 (1 or 4 or 0)

ⓓ 6 + ... = 7 (1 or 7 or 0)

ⓔ 4 X .... = 9 X 4 (4 or 9 or 1)

ⓕ 9 + ... = 3 + 9 (3 or 9 or 12)

ⓖ 8 X .... = 8 + 8 (8 or 2 or 1)

ⓗ 5 X .... = (5 X 10) + (5 X 3) (10 or 3 or 13)

Accumulative Assessment 26 up to Lesson 3

Chapter 6

First: Choose the correct answer:

a) 8 X .... = 8 (8 or 1 or 0)

b) 60,000 + 500 + 2 = ... (65,200 or 60,520 or 60,502)

c) The **value** of the digit 8 in **8**5,247 is ....

(8,000 or 80,000 or 800,000)

d) 8 X 20 = ... X 10 (20 or 8 or 16)

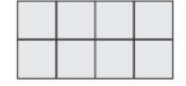
e) 9 + 9 + 9 + 9 + 9 = ... (5 X 9 or 5 + 9 or 9 X 9)

Second: Complete the following:

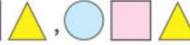
a) Six hundred six thousand, five hundred fifty **(in standard form)**: 606,550

b) 15 Ones + 3 Hundreds + 70 Thousands = 70,315

c) 9 X ....15.... = (9 X 10) + (9 X 5)



d) The **area** of the opposite figure = ...8.... ☐

e)   ,  , 

Third: Answer the following:

a) Arrange the follwoing numbers in a **descending** order:

25,250 , 25,025 , 25,205 , 25,502 , 25,052

• 25,502 , 25,250 , 25,205 , 25,052 , 25,025

---

b) Find the result:

1. 8 X 0 = ...0....
2. 90 X 20 = ...1,800....
3. 28 ÷ 7 = ...4....
4. 1 + 1 + 1 + 1 + 1 + 1 = 6 X 1 = 6

---

c) Salma went to the club at 3 : 15 and left for home at 5 : 15 .

How long did Salma spend in the club?

2 hours .



Lesson 4 Comparing and Ordering Numbers in Different Forms

1 Choose the correct answer:

a. Seven hundred thousand and seventy = ...

(700,070 or 700,017 or 770,000)

b. 5 + 20 + 400 + 7,000 = ... (5,247 or 70,425 or 7,425)

c. 70,010 comes just **after** .... (79,999 or 70,099 or 70,009)

d. .... comes just **before** 2 000. (1,999 or 2,001 or 1,099)

e. 20 Thousands + 75 Tens = ... (2,075 or 20,075 or 20,750)

f. 60 Hundreds = ... (60,000 or 6,000 or 600,000)

g. 8,000 Tens = ... Hundreds. (800 or 8,000 or 80,000)

h. 300,000 = ... Hundreds. (30 or 300 or 3,000)

i. The **largest** 5-different-digit number is ....

(98,765 or 99,999 or 10,234)

j. The **smallest** 6-different-digit number is ....

(100,000 or 123,456 or 102,345)

k. The **largest** 5-same-digit number is ....

(99,999 or 98,756 or 9,999)

l. The **smallest** 4-same-digit number is .... (1,000 or 11,111 or 1,111)

m. The **value** of the digit 3 in 5**3**,889 is .... (3,000 or 300 or 30)

n. The **value** of the digit 8 in **8**77,624 is .... (800,000 or 8,000 or 800)

o. The **place value** of 9 in **9**,247 is ....

(Hundreds or Thousands or Ten Thousands)

2 Complete the following:

a) Two hundred five thousand, six hundred and eleven = 205,611 **(in standard form)**

b) 700,608 **(in word form)**: Seven hundred thousands, six hundred eight

c) 700,000 + 70,000 + 5,000 + 800 + 50 + 3 = 775,853

d) 998 Thousands + 6 Ones + 5 Tens + 7 Hundreds = 998,756

e) 70 + 0 + 0 + 4 = 74

f) 77,856 = 70,000 + 7,000 + 800 + 50 + 6

g) 552,159 = 5 Tens + 552 Thousands + 9 Ones + 1 Hundreds

h) The number that comes just **after** 362,999 is 363,000 .

i) 70,250 comes just **after** 70,249 .

j) The number 100,000 comes just **after** 99,999.

k) The number that comes just **before** 700,000 is 699,999 .

l) 31,560 comes just **before** 31,561 .

m) The number 105,199 comes just **before** 105,200.

n) The **place value** of 5 in 2**5**4,269 is Ten Thousands

o) The **value** of the digit 7 in **7**9,159 is 70,000 .

p) The **largest** 6-digit number is 999,999 .

q) The **smallest** 6-digit number is 100,000 .

r) The **largest** 5-digit number is 99,999 .

s) The **smallest** 5-digit number is 10,000 .

t) The **largest** and the **smallest** numbers formed from the digits 7 , 2 , 0 , 6 , and 3 are 76,320 and 20,367 .



3 Complete the following table:

	Number	The Value of the Encircled Digit	The Place Value of the Encircled Digit
a	(4)55,369	400,000	Hundred Thousands
b	3(6)2,512	60,000	Ten Thousands
c	28(0), 239	0	Thousands
d	696,2(7)4	70	Tens
e	51,78(0)	0	Ones

4 Complete using (<, =, or >) :

a 345,123 < 600,201

b 788,250 < 788,520

c 441,002 < 441,020

d 99,999 < 100,010

e 5,628 > 5,268

f 39,020 < 39,200

g 5 Tens + 7 Thousands + 4 Hundreds > 7,405

h Twenty thousand and twenty > 2,020

i 500,000 + 50,000 + 500 + 5 < 555,005

j 3,600 + 36 < 360,036

k An hour and a quarter < 95 minutes

l 2 hours and 25 minutes < 150 minutes

5 **Arrange each group of the following numbers in an ascending order and in a descending order:**

ⓐ 32,023 , 98,123 , 75,023 , 54,987 , 20,368

Ascending Order:

20,368 , 32,023 , 54,987 , 75,023 , 98,123

Descending Order:

98,123 , 75,023 , 54,987 , 32,023 , 20,368

ⓑ 500,368 , 500,638 , 500,863 , 500,386 , 500,683

Ascending Order:

500,368 , 500,386 , 500,638 , 500,683 , 500,863

Descending Order:

500,863 , 500,683 , 500,638 , 500,386 , 500,368

6 **A number that has 5 Thousands, 7 Hundreds, 6 Tens, and 4 Ones. What number is it?**

5,764 .

Accumulative Assessment 27 up to Lesson 4

Chapter 6

First: Choose the correct answer:

a The **smallest** 6-different-digit number is ....

(100,000 or 123,456 or 102,345)

b Three hundred three thousand, three hundred and three = ...

(303,303 or 300,033 or 330,303)

c The **value** of the digit 0 in 35**0**,567 is ....

(10,000 or 1,000 or 0)

d The number that comes just **after** 209,999 is ....

(300,000 or 209,998 or 210,000)

e 25 Thousands + 6 Ones + 7 Hundreds + 9 Tens = ...

(25,679 or 25,796 or 25,769)

Second: Complete the following:

a The **greatest** 6-digit number formed from the digits 3, 5, and 7 is ...777,753... . b 250,250 = 250 + ...250,000...

c The **place value** of 0 in 4**0**5,612 is ...Ten Thousands... .

d 8 Tens + 502 Thousands + 7 Ones + 2 Hundreds = ...502,287...

e (8 X ...4...) + (8 X ...7...) = 32 + 56 = ...88...

Third: Answer the following:

a **Find the result:**

❶ 4 X 6 = ...24... ❷ 2 X 9 = ...18... ❸ 12 ÷ 3 = ...4...

b **Arrange the following numbers in an ascending order:**

10,000 , 999 , 50,000 , 200 , 6,000

• ...200... , ...999... , ...6,000... , ...10,000... , ...50,000...

c **Use the opposite figure to find:**

• Area = ...10... square cm

• Perimeter = ...14... cm

Lesson 5 Addition Strategies

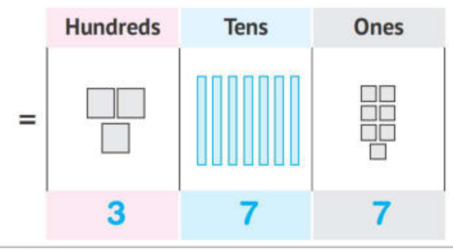
1 Use the **Place Value Strategy** to add:

ⓐ 253 + 124 = ...377........

Hundreds	Tens	Ones
2	5	3

+

Hundreds	Tens	Ones
1	2	4



=

Hundreds	Tens	Ones
3	7	7

ⓑ 310 + 235 = ...545........

Hundreds	Tens	Ones
3	1	0

+

Hundreds	Tens	Ones
2	3	5

=

Hundreds	Tens	Ones
5	4	5



ⓒ 287 + 209 = 496

Hundreds	Tens	Ones		Hundreds	Tens	Ones
2	8	7	+	2	0	9

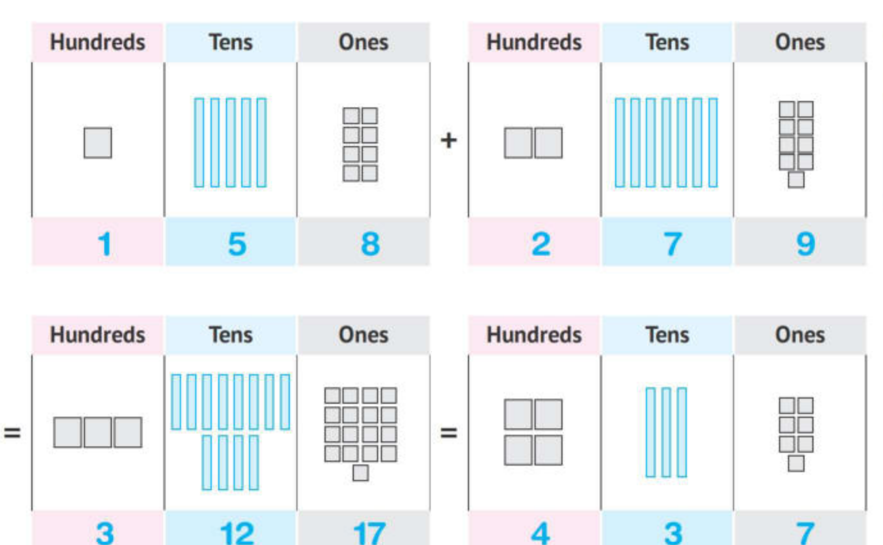
	Hundreds	Tens	Ones		Hundreds	Tens	Ones
=	4	8	16	=	4	9	6

ⓓ 482 + 193 = 675

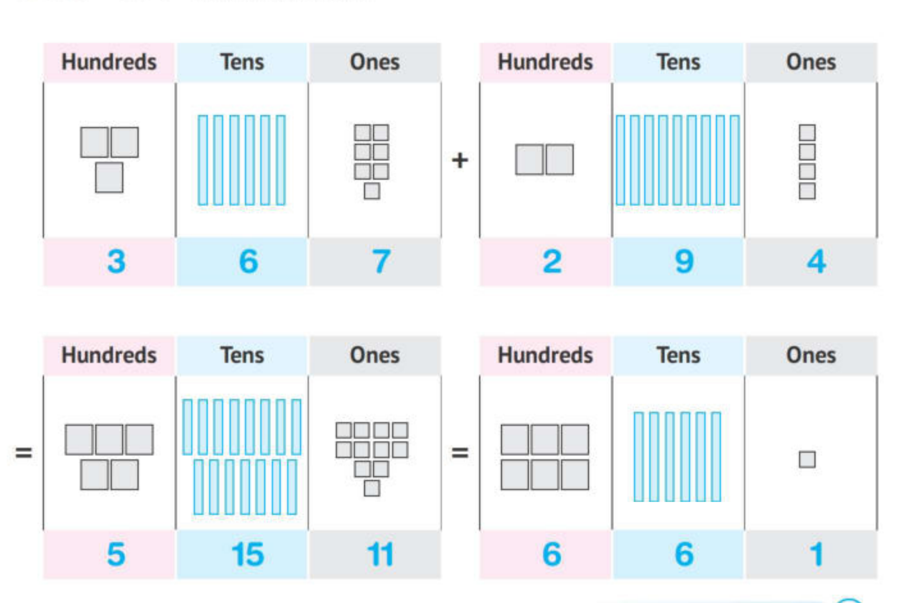
Hundreds	Tens	Ones		Hundreds	Tens	Ones
4	8	2	+	1	9	3

	Hundreds	Tens	Ones		Hundreds	Tens	Ones
=	5	17	5	=	6	7	5

ⓔ 158 + 279 = 437



ⓕ 367 + 294 = 661





2 Use the Expanded Form Strategy to add:

	Problem	Work Space	Sum
a	253 + 124	200 + 50 + 3 100 + 20 + 4 300 + 70 + 7	377
b	376 + 342	300 + 70 + 6 300 + 40 + 2 600 + 110 + 8	718
c	128 + 439	100 + 20 + 8 400 + 30 + 9 500 + 50 + 17	567
d	428 + 297	400 + 20 + 8 200 + 90 + 7 600 + 110 + 15	725
e	108 + 692	100 + 0 + 8 600 + 90 + 2 700 + 90 + 10	800
f	5,125 + 3,753	5,000 + 100 + 20 + 5 3,000 + 70 + 50 + 3 8,000 + 800 + 70 + 8	8,878
g	6,287 + 1,521	6,000 + 200 + 80 + 7 1,000 + 500 + 20 + 1 7,000 + 700 + 100 + 8	7,808

h	2,458 + 3,451	2,000 + 400 + 50 + 8 3,000 + 400 + 50 + 1 5,000 + 800 + 100 + 9	5,909
i	6,666 + 2,314	6,000 + 600 + 60 + 6 2,000 + 300 + 10 + 4 8,000 + 900 + 70 + 10	8,980
j	7,357 + 242	7,000 + 300 + 50 + 7 + 200 + 40 + 2 7,000 + 500 + 90 + 9	7,599
k	6,824 + 257	6,000 + 800 + 20 + 4 + 200 + 50 + 7 6,000 + 1,000 + 70 + 11	7,081

3 Use the Number Line Strategy to add:

Problem		Work Space	Sum
a	356 + 243	+ 200 + 40 + 3 356 556 596 599	599
b	147 + 237	+ 100 + 40 + 7 237 337 377 384	384

c	124 + 773	+100, +20, +4: 773 → 873 → 893 → 897	897
d	257 + 212	+200, +10, +2: 257 → 457 → 467 → 469	469
e	624 + 421	+400, +20, +1: 624 → 1,024 → 1,044 → 1,045	1,045
f	3 125 + 4,234	+3000, +100, +20, +5: 4,234 → 7,234 → 7,334 → 7,354 → 7,359	7,359
g	3,561 + 2,533	+2000, +500, +30, +3: 3,561 → 5,561 → 6,061 → 6,091 → 6,094	6,094
h	4,258 + 3,124	+3000, +100, +20, +4: 4,258 → 7,258 → 7,358 → 7,378 → 7,382	7,382
i	8,124 + 325	+300, +20, +5: 8,124 → 8,424 → 8,444 → 8,449	8,449
j	3,587 + 413	+400, +10, +3: 3,587 → 3,987 → 3,997 → 4,000	4,000

4 **Find the sum of each of the following:**

a)
```
   123
 + 245
 -----
   368
```

b)
```
   325
 +   6
 -----
   331
```

c)
```
   4,778
 + 1,889
 -------
   6,667
```

d)
```
   126
 +  96
 -----
   222
```

e)
```
   378
 + 281
 -----
   659
```

f)
```
     999
 +     1
 -------
   1,000
```

g)
```
   676
 + 156
 +  37
 -----
   869
```

h)
```
     722
 +   278
 +   199
 -------
   1,199
```

i)
```
     795
 + 6,172
 + 1,988
 -------
   8,955
```

j) 265 + 73 = 338

k) 222 + 399 = 621

l) 499 + 1 = 500

m) 3,369 + 455 = 3,824

n) 4,666 + 2,254 = 6,920

o) 2,456 + 2,487 = 4,943

Accumulative Assessment 28 up to Lesson 5

Chapter 6

First: Choose the correct answer:

a The **largest** 6-different-digit number is ....
(999,999 or 987,654 or 123,456)

b 850 thousand, 58 = ... (85,058 or 8,585 or 850,058)

c 50 X 800 = ... (4,000 or 40,000 or 400,000)

d 250,025 = 25 + ... (250,000 or 250 or 2,500)

e The **value** of the digit 8 in 2**8**7,156 is ....
(80,000 or 8,000 or 80)

Second: Complete the following:

a (4 X 7) + (4 X 7) = ...28... + ...28... = ...56...

b 3 Ones + 581 Thousands + 8 Tens = ...581,083...

c ...7... + 1 = 8

d The number that comes just **after** 99,999 is ...100,000... .

e  , ... , ...

Third: Answer the following:

a **Find the result:**

❶ 4,568 + 512 = ...5,080... ❷ 8,002 + 1,527 = ...9,529...

❸ 800,000 + 210 + 30,000 = ...830,210...

b **Order the following numbers in an ascending order.**

500 , 500,000 , 50 , 50,000 , 5,000

• ...50... , ...500... , ...5,000... , ...50,000... , ...500,000...

c **Add using the Number Line Strategy:**

256 + 724 = ...980...

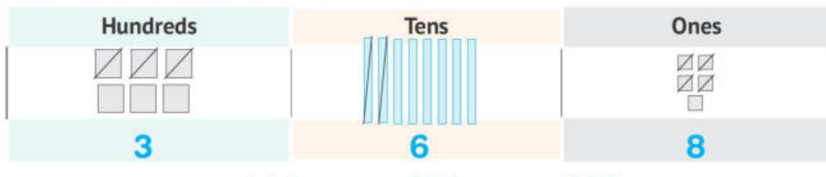
+200 +50 +6

724 924 974 980

Lesson 6 Subtraction Strategies

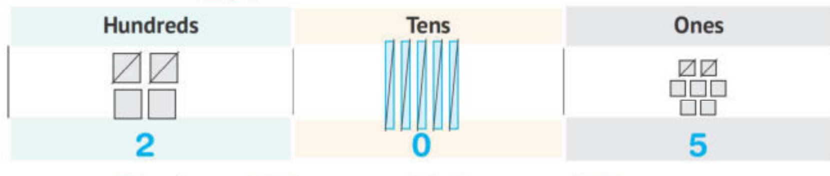
1 Solve the following subtraction problems using the Place Value Picture Strategy:

ⓐ 685 – 324 = 361



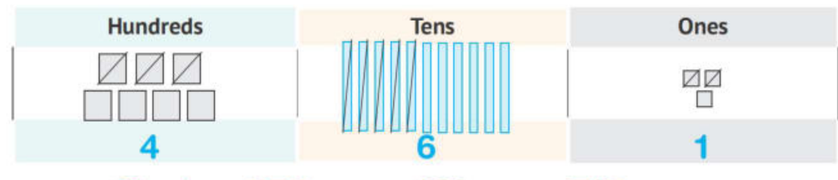
Check: 324 + 361 = 685

ⓑ 457 – 252 = 205



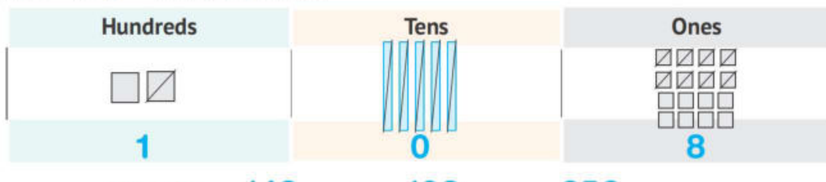
Check: 252 + 205 = 457

ⓒ 713 – 252 = 461



Check: 252 + 461 = 713

ⓓ 256 – 148 = 108



Check: 148 + 108 = 256

e) 5,476 – 1,236 = 4,240

Thousands	Hundreds	Tens	Ones
4	2	4	0

Check: 1,236 + 4,240 = 5,476

f) 9,563 – 8,173 = 1,390

Thousands	Hundreds	Tens	Ones
1	3	9	0

Check: 8,173 + 1,390 = 9,563

g) 6,345 – 2,582 = 3,763

Thousands	Hundreds	Tens	Ones
3	7	6	3

Check: 2,582 + 3,763 = 6,345

h) 9,023 – 1,281 = 7,742

Thousands	Hundreds	Tens	Ones
7	7	4	2

Check: 1,281 + 7,742 = 9,023

2 Solve the subtraction problems below, using the Number Line Strategy:

	Subtraction Problem	Check
a	753 – 241 = 512 –1, –40, –200 512, 513, 553, 753	241 + 512 = 753
b	856 – 215 = 641 –5, –10, –200 641, 646, 656, 856	215 + 641 = 856
c	777 – 253 = 524 –3, –50, –200 524, 527, 577, 777	253 + 524 = 777
d	654 – 129 = 525 –2, –20, –100 525, 534, 554, 654	129 + 525 = 654
e	654 – 294 = 360 –4, –90, –200 360, 364, 454, 654	294 + 360 = 654

f	7,852 – 324 = 7,528 –4 –20 –300 7,528 7,532 7,552 7,852	324 + 7,528 7,852
g	9,529 – 283 = 9,246 –3 –80 –200 9,246 9,249 9,329 9,529	283 + 9,246 9,529
h	8,547 – 3,421 = 5,126 –1 –20 –400 –3,000 5,126 5,127 5,147 5,547 8,547	3,421 + 5,126 8,547
i	6,542 – 2,217 = 4,325 –7 –10 –200 –2,000 4,325 4,332 4,342 4,542 6,542	2,217 + 4,325 6,542
j	7,000 – 1,423 = 5,577 –3 –20 –400 –1,000 5,577 5,580 5,600 6,000 7,000	1,423 + 5,577 7,000

3 Subtract:

a) 753 − 245 = 508	b) 456 − 321 = 135	c) 4,978 − 1,889 = 3,089
d) 218 − 5 = 213	e) 778 − 281 = 497	f) 4,997 − 448 = 4,549
g) 705 − 78 = 627	h) 1,000 − 1 = 999	i) 2,708 − 1,378 = 1,330

j) 265 − 73 = 192

k) 622 − 399 = 223

l) 491 − 9 = 482

m) 3,369 − 455 = 2,914

n) 4,656 − 2,264 = 2,392

o) 3,086 − 2,457 = 629

Accumulative Assessment 29 up to Lesson 6

Chapter 6

First: Choose the correct answer:

a) Nine hundred thousands, ninety nine = ...

(999,000 or 900,990 or 900,099)

b) The **value** of the digit 5 in 2**5**9,024 is ....

(50,000 or 500,000 or 5,000)

c) 800 + 200,000 + 60 + 30,000 + 7 + 9,000 = ...

(826,379 or 239,867 or 237,896)

d) The number that comes just **after** 80,999 is ....

(81,000 or 90,999 or 80,100)

e) The **smallest** 5-different-digit number is ....

(12,345 or 98,765 or 10,234)

Second: Complete the following:

a) The **triangle** has ....3.... sides, ...3.... angles, and ....3.... vertices.

b) 8 + 8 + 8 + 8 + 8 = ...5.... X ....8....

c) 9 X 3 = ...3.... X 9

d) 9 X 6 = (10 X 6) – ....6....

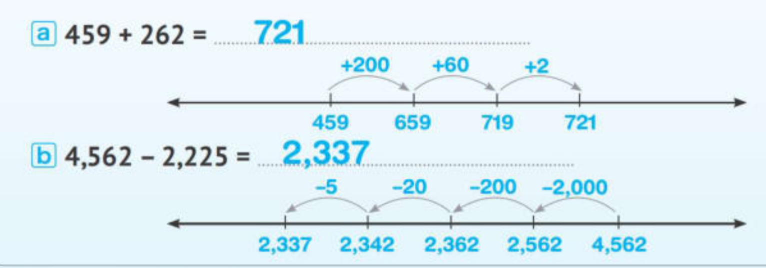
e) The **perimeter** of the opposite figure is ....12.... units.

Third: Answer the following:

Use the Number Line Strategy to find:

a) **459 + 262 =** ....721....

b) **4,562 – 2,225 =** ....2,337....



Lesson 7 Applications on Addition and Subtraction

1 **The following table shows the number of students in each grade in a school. Use this information to answer the questions below:**

Grade	P1	P2	P3	P4	P5
Number of Students	354	371	478	203	139

Answer the following questions:

a) How many students are there in **P1** and **P4** altogether? 354 + 203 = 557 students .

b) How many students are there in **P3**, **P4** and **P5** altogether? 478 + 203 + 139 = 820 students

c) How many more students are there in **P3** than in **P2**? 478 − 371 = 107 students .

d) What is the class with the **largest** number of students? P3 .

e) Which class has the **fewest** students? P5 .

2 **The following table shows the lengths of some of the worlds' longest rivers. Use the information to answer the questions below:**

River	Approximate Length in Km
Nile	About 6,650 km
Amazon	About 6,400 km
Mississippi	About 3,775 km
Euphrates	About 2,800 km

Answer the following questions:

a) What is the **longest** river? Nile rivers .

b) What is the **shortest** river? Euphrates river .



ⓒ What is the **total length** of the **Mississippi river** and the **Amazon river** together? 3,775 + 6,400 = 10,175 km .

ⓓ What is the **total length** of the **Euphrates river** and the **Nile river** together? 2,800 + 6,650 = 9,450 km .

ⓔ How many more kilometers is the **Nile** than the **Euphrates**? .
6,650 – 2,800 = 3,850 km

3 Read each story problem and decide on a strategy to solve it:

ⓐ Amir's family is saving to buy a new TV. The TV costs **5,940**LE on sale. They have saved **4,210**LE so far.

How much more money do they need to buy the TV?

5,940 – 4,210 = 1,730 LE

ⓑ Mr. Mahmoud raises chickens in his farm. In the past two years, his chickens have laid **5,350** eggs. Last year his chickens laid **2,120** eggs.

How many eggs did his chickens lay two years ago?

5,350 – 2,120 = 3,230 eggs

ⓒ Mr. Mahmoud raises sheep in his farm. One day he took **235** sheep out to graze on a hill. Later, his neighbor brought his sheep to the same hillside. Now there are **680** sheep on the hill.

How many sheep did the neighbor bring to the hillside?

680 – 235 = 445 sheep

ⓓ The library can hold **2,475** books, but **525** books are borrowed and **137** books are missing.

How many books are there in the library right now?

525 + 137 = 662 books

2,475 – 662 = 1,813 books

ⓔ Omar just moved to the city. He found an apartment to rent for **3,340**LE per month. Electricity and gas will cost him **692**LE per month. How much money will it cost him each month to live there?

3,340 + 692 = 4,032 LE

Omar had **5,000**LE to spend each month, how much money does he have left after he pays for rent, electricity, and gas?

5,000 – 4,032 = 968 LE

ⓕ **Three** boxes filled with books were just delivered to the library. If each box is filled with **215** books, how many books were delivered?

215 + 215 + 215 = 645 books

ⓖ A number that has **5 Thousands**, **7 Hundreds**, **6 Tens**, and **4 Ones**. What number is it?

5,764

ⓗ A number that has **12 Hundreds**, **15 Tens**, and **6 Ones**. What number is it?

1,200 + 150 + 6 = 1,356

Accumulative Assessment 30 up to Lesson 7

Chapter 6

First: Choose the correct answer:

a The **smallest** 6-different-digit number is ....

(100,000 or 123,456 or 102,345)

b Three hundred three thousand, three hundred and three = ...

(303,303 or 300,033 or 330,303)

c The **value** of the digit 0 in 35**0**,567 is .... (10,000 or 1,000 or 0)

d The number that comes just **after** 209,999 is ....

(300,000 or 209,998 or 210,000)

e 25 Thousands + 6 Ones + 7 Hundreds + 9 Tens = ...

(25,679 or 25,796 or 25,769)

Second: Complete the following:

a 6 X 3 = 9 + ...9....

b 5 X 7 = (....5.... X ....4....) + (....5.... X 3)

c 9 X 3 = ...3.... X 9

d 45 ÷ ....9.... = 5

e 12 + ...0.... = 12

Third: Answer the following:

a **Find the result:**

1. 456 + 643 = ...1,099....
2. 4,020 – 129 = ...3,891....

---

b **Arrange the following numbers in an ascending order:**

10,000 , 999 , 50,000 , 200 , 6,000

• ....200.... , ...999.... , ...6,000.... , ...10,000.... , ...50,000....

---

c Mona has 545LE and Nada has **235**LE.

How much money do they have altogether?

They have = ...545.... + ...235.... = ...780.... LE.

Lessons 8&9 Capacity – Reading Capacity

1 Circle the container that has the **largest** capacity:

ⓐ

ⓑ

ⓒ

ⓓ

ⓔ

ⓕ

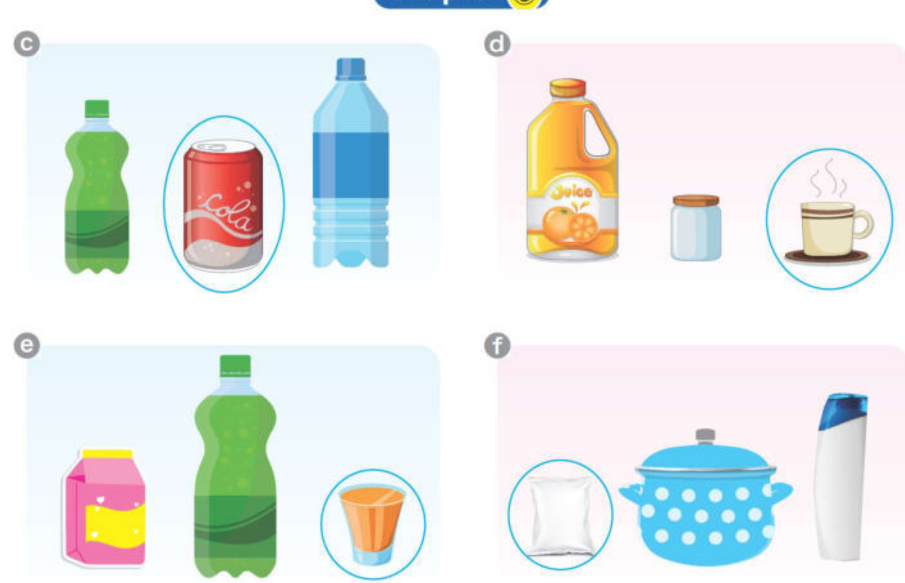
2 Circle the container that has the **smallest** capacity:

ⓐ

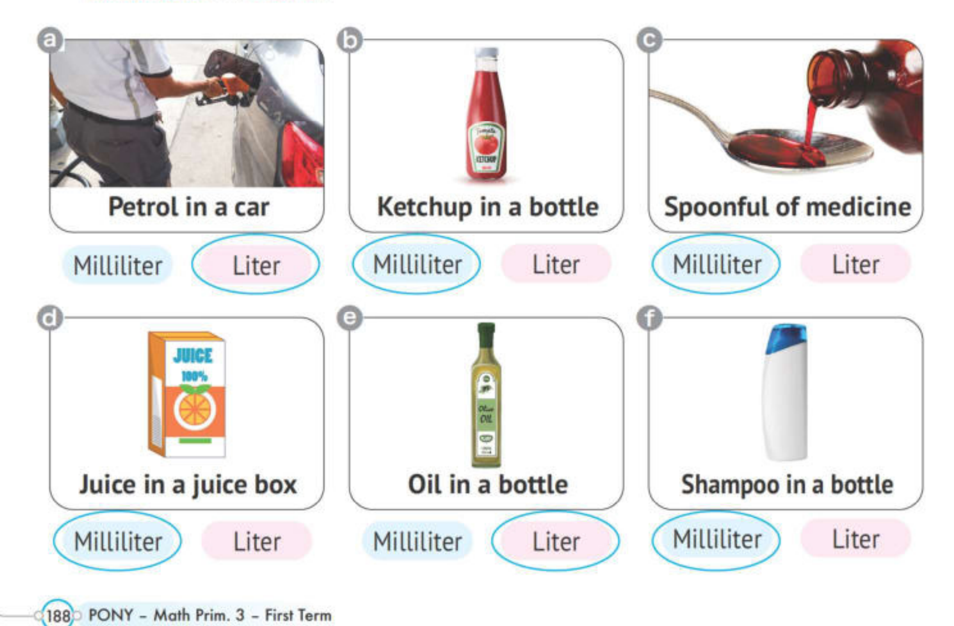


ⓑ





3 What is better for measuring the volume of liquid in capacity, in **milliliters** or **liters**?





4 Complete the following:

ⓐ 2 **liters** = ...**2,000**.... **milliliters**

ⓑ 5 **liters** = ...**5,000**.... **milliliters**

ⓒ 7 **liters** = ...**7,000**.... **milliliters**

ⓓ 9 **liters** = ...**9,000**.... **milliliters**

ⓔ 25 **liters** = **25,000** **milliliters**

ⓕ 10 **liters** = **10,000** **milliliters**

ⓖ 4,000 **milliliters** = ...**4**.......... **liters**

ⓗ 6,000 **milliliters** = ...**6**.......... **liters**

ⓘ 90,000 **milliliters** = ...**90**.......... **liters**

ⓙ 20,000 **milliliters** = ...**20**.......... **liters**

k. To measure the capacity of the **soda can**, we use milliliter.

l. To measure the capacity of the **swimming pool,** we use liter.

m. The **liter** is used to measure capacity.

n. The **milliliter** is used to measure capacity.

o. The **graduated cylinder** is a tool for measuring capacity.

5 Write the capacity of each of the following:

a. 50 ml	b. 80 ml	c. 90 ml	d. 30 ml
e. 20 ml	f. 100 ml	g. 40 ml	h. 60 ml

Accumulative Assessment 31 up to Lesson 9

Chapter 6

First: Choose the correct answer:

a) 8 **liters** = ... **milliliters** ((8,000) or 800 or 80)

b) 7 + 7 + 7 + 7 = ... ((7 X 4) or 7 + 4 or 7 X 7)

c) 80 X 3 = ... X 40 (240 or (6) or 60)

d) The capacity of **a cup of tea** is .... (6 liter or 800 ml or (200 ml))

e) .... is a unit of measuring **capacity**. (Hour or Meter or (Liter))

Second: Complete the following:

a) 9,000 milliliter = ... 9 ...... liter

b) The volume of **water in a pool** is measured by ...... liter ....

c) The number that comes just **after** 99,999 is ...... 100,000 ....

d) 20 cm = ... 200 ...... mm

e) The **smallest** 5-different-digit number is ...... 10,234 ....

Third: Answer the following:

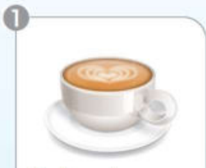
a) **Find the result:**

1. 9 X 13 = (9 X 10) + (3 X 9) = 90 + 27 = 117
2. 72 ÷ 8 = ... 9 ......
3. 899 + 1 001 = ... 1,900 ......
4. 42 ÷ 6 = ... 7 ......

b) **If each book costs 9LE, how many books can you buy with 63LE?**

63 ÷ 9 = 7 Books

c) **Write the suitable unit (milliliter or liter):**

1. 
Coffee in a cup
Milliliter

2. 
Water in a bottle
Liter

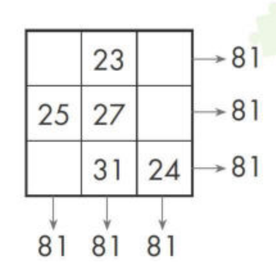
3. 

Soda in a can
Milliliter

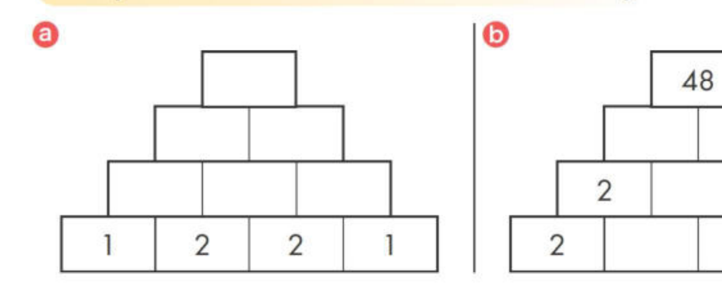
4. 
Petrol in a car
Liter

PUZZLE

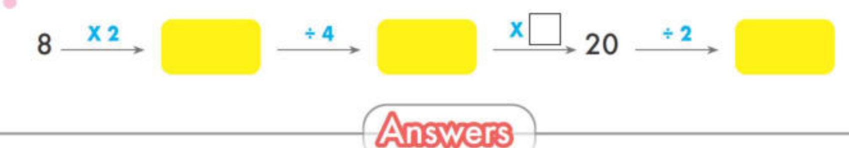
1 Complete the opposite figure so that the sum of each column and each row is **81**:



2 Complete the following figures so that the product of any adjacent numbers is the number directly above them:



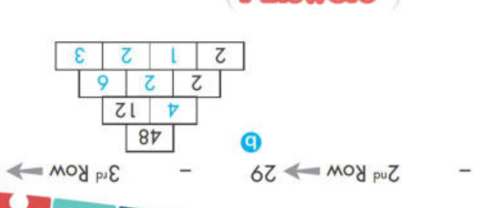
3 Fill in the missing numbers and signs:



Answers

1 1st Row → 30 , 28 – 2nd Row → 29 – 3rd Row → 26

2



3 16 , 4 , 5 , 10

General Exercises

Collecting and Classifying Data

1 The following numbers show the weights of 21 children (in kilograms):

40 , 44 , 42 , 44 , 42 , 41 , 42

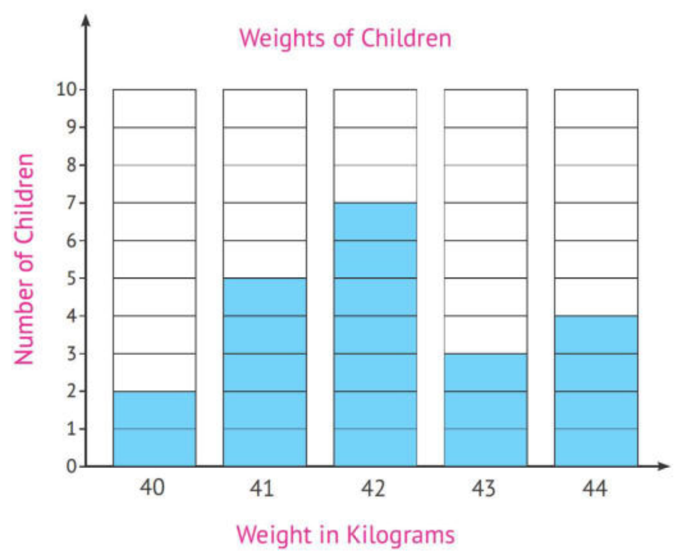
43 , 43 , 42 , 41 , 44 , 41 , 40

41 , 42 , 43 , 44 , 42 , 42 , 41

a Complete the following tally table:

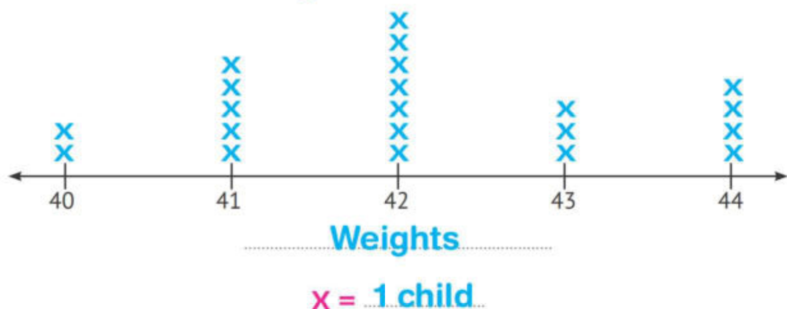
Weight	40	41	42	43	44
Tallies	||	卌	卌 ||	|||	||||
Number of Children	2	5	7	3	4

b Complete the following bar graph:



c Create a line plot :



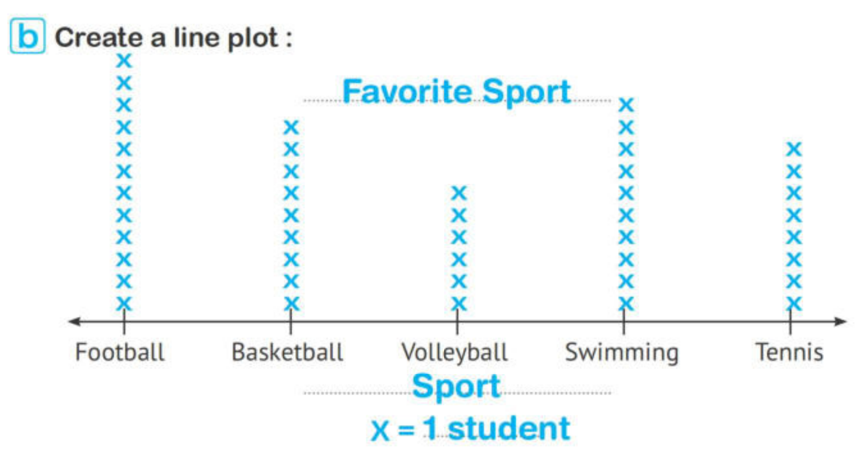


2 The following table shows the students' favorite sport:

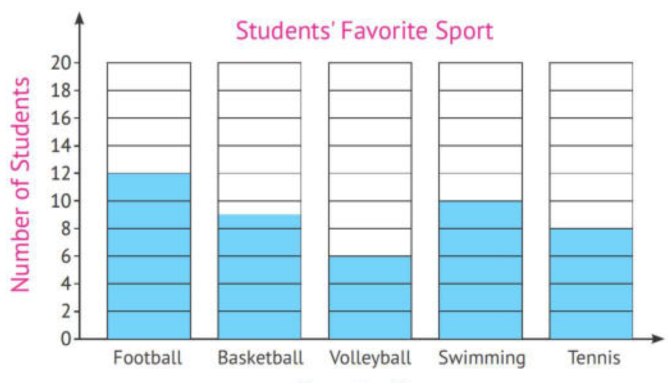
a Complete the table :

Favorite Sport	Football	Basketball	Volleyball	Swimming	Tennis
Tallies	~~||||~~ ~~||||~~ ||	~~||||~~ ||||	~~||||~~ |	~~||||~~ ~~||||~~	~~||||~~ |||
Number of Students	12	9	6	10	8

b Create a line plot :



c **Complete the following bar graph :**



d **Answer the following questions :**

1. The number of students who prefer football is ....**12**.... .
2. The number of students who prefer volleyball is ....**6**.... .
3. The number of students who prefer basketball and tennis together is **9 + 8 = 17** .
4. The sport preferred by the greatest number of students is **Football**.
5. The sport preferred by the least number of students is **Volleyball** .

Numbers Up to 999999 and Operations on Them

First: **Choose the correct answer:**

1. Seven hundred thousand, seventy **(in standard form) is:** ....

   (700,070 or 70,070 or 700,700)

2. Ninety-four thousand, nine hundred four **(in standard form) is:** ....

   (940,904 or 94,904 or 94,094)

3. 70,000 + 5,000 + 800 + 50 + 6 = ...

   (705,856 or 750,856 or 75,856)

4. 4 + 800,000 + 600 + 2,000 = ...

   (4,862 or 802,604 or 820,604)

5. 45 Thousands + 8 Hundreds + 6 Ones = ...

   (45,806 or 450,086 or 4,586)

6. 20 Thousands + 50 Hundreds = ...

   (205,000 or 20,500 or 25,000)

7. 500 Hundreds = ... Thousands (50 or 500 or 5,000)

8. 80 Thousands = ... Hundreds (800 or 8,000 or 80,000)

9. 4,000 Tens = ... Thousands (4 or 40 or 4,000)

10. The **value** of the digit 7 in 3**7**,856 is ....

    (700 or 7,000 or 70,000)

11. The **value** of the digit 0 in 75,**0**36 is ....

    (0 or 100 or 1,000)

12. The **place value** of the digit 4 in 85,2**4**7 is ....

    (Ones or Tens or Hundreds)

13. The **place value** of the digit 6 in 7**6**5,217 is ....

    (Thousands or Ten-Thousands or Hundred-Thousands)

14 The **smallest** 5-digit number is ....

(10,000 or 10,234 or 99,999)

15 The **greatest** 6-digit number is ....

(100,000 or 999,999 or 98,765)

16 The **greatest** 4-different-digit number is ....

(1,023 or 9,999 or 9,876)

17 The **smallest** 4-different-digit number is ....

(1,234 or 1,023 or 1,111)

18 The **greatest** number that can be formed from the digits (5, 3, 8, 4 and 6) is ....

(53,846 or 86,543 or 34,568)

19 The **smallest** number that can be formed from the digits (7, 9, 0, 3 and 1) is ....

(13,790 or 97,310 or 10,379)

20 The **greatest** 5-digit number that can be formed from the digits (4, 8 and 2) is ....

(88,842 or 80,042 or 84,222)

21 The number that comes just **after** 45,099 is ....

(45,000 or 46,000 or 45,100)

22 The number .... comes just **after** 70,010.

(70,009 or 70,011 or 70,020)

23 78,099 comes just **before** ....

(79,000 or 78,100 or 78,098)

24 The number that comes just **before** 10,000 is ....

(9,999 or 10,001 or 99,998)

25 45,025	☐	45,205	(< or = or >)
26 70 Thousands	☐	7,000 Tens	(< or = or >)
27 5 + 30 + 700 + 9,000	☐	5,379	(< or = or >)

28 900 Thousands + 90 Tens ☐ 900,090 (< or = or (>))

29 543 + 457 ☐ 10 Hundreds (< or (=) or >)

30 9,000 – 458 ☐ 6,257 + 2,623 ((<) or = or >)

Second: Complete the following:

1 25,325 **(in word form):** Twenty-five thousand, three hundred, twenty-five

2 902,019 **(in word form):** Nine hundred two thousand, nineteen

3 78,172 **(in expanded form):** 70,000 + 8,000 + 100 + 70 + 2

4 650,256 **(in expanded form):** 600,000 + 50,00 + 200 + 50 + 6

5 45,045 = 45 + 45,000 .

6 200,200 = 200,000 + 200

7 95 Thousands + 5 Hundreds + 3 Tens + 4 Ones = 95,534

8 18,025 = 18 Thousands + 0 Hundreds + 2 Tens + 5 Ones

9 800,012 = 2 Ones + 800 Thousands + 1 Ten + 0 Hundreds

10 200 Hundreds = 2,000 Tens

11 10 Thousands = 100 Hundreds

12 40 Thousands = 4,000 Tens

13 The **value** of the digit 6 in **6**52,001 is 600,000

14 The **value** of the digit 9 in **9**5,021 is 90,000 .

15 The **place value** of the digit 0 in 24,**0**12 is Hundreds

16 The **place value** of the digit 7 in 1**7**,123 is Thousands

17 The **smallest** 6-digit number is 100,000

18 The **greatest** 5-digit number is 99,999 .

19 The **greatest** 4-same-digit number is 9,999 .

20 The **smallest** 4-same-digit number is 1,111 .

21 The **greatest** number that can be formed from the digits (7, 8, 0, 9, 2 and 5) is 987,520

22 The **smallest** number that can be formed from the digits (4, 1, 8, 6 and 0) is 10,468 .

23 The **greatest** 6-digit number that can be formed from the digits (2, 9 and 4) is 999,942

24 The **smallest** 5-digit number that can be formed from the digits (5 and 7) is 55,557

25 The number that comes just **after** 99,999 is 100,000

26 The number 50,001 comes just **after** 50,000.

27 25,478 comes just **after** 25,477

28 10,999 comes just **before** 11,000

29 The number that comes just **before** 50,100 is 50,099

30 The number 80,019 comes just **before** 80,020.

Third: Answer the following:

1 Write the number shown in the following table in the:

Thousands			Hundreds	Tens	Ones
Hundreds	Tens	Ones			
	7	4	5	7	3

Standard Form: 74,573

Word Form: Seventy-four thousand, five hundred seventy- three

Expanded Form: 70,000 + 4,000 + 500 + 70 + 3

Units Form: 74 Thousands + 5 Hundreds + 7 Tens + 3 Ones

2 Write the number shown in the following table in the:

Thousands			Hundreds	Tens	Ones
Hundreds	Tens	Ones			
6	1	5	9	1	2

Standard Form: 615,912

Word Form: Six hundred fifteen thousands nine hundred twelve

Expanded Form: 600,000 + 10,000 + 5,000 + 900 + 10 + 2

Units Form: 615 Thousands + 9 Hundreds + 1 Ten + 2 Ones

3 Arrange the following numbers in an **ascending** order:

a) 75,205 , 75,025 , 75,520 , 75,502 , 75,250

75,025 , 75,205 , 75,250 , 75,502 , 75,520

b) 99,999 , 10,000 , 99,000 , 100,000 , 9,999

9,999 , 10,000 , 99,000 , 99,999 , 100,000

4 Arrange the following numbers in a **descending** order:

a) 85,085 , 58,058 , 85,850 , 58,580 , 85,805

85,850 , 85,805 , 85,580 , 85,085 , 85,058

b) 10,234 , 10,000 , 11,111 , 10,023 , 10,011

11,111 , 10,234 , 10,023 , 10,011 , 10,000

5 Use the **Place Value Strategy** to find:

a) 252 + 681 = 933

Hundreds	Tens	Ones
2	5	2

+

Hundreds	Tens	Ones
6	8	1

=

Hundreds	Tens	Ones
8	13	3

=

Hundreds	Tens	Ones
9	3	3

b 172 + 228 = 400

Hundreds	Tens	Ones
1	7	2

+

Hundreds	Tens	Ones
2	2	8

=

Hundreds	Tens	Ones
3	9	10

=

Hundreds	Tens	Ones
4	0	0

c 645 – 128 = 517

Hundreds	Tens	Ones
5	1	7

Check: 128 + 517 = 645

d 5,124 – 2,516 = 2,608

Thousands	Hundreds	Tens	Ones
2	6	0	8

Check: 2,516 + 2,608 = 5,124

6 Use the **expanded form strategy** to find:

a 782 + 126 = 908

700 + 80 + 2

100 + 20 + 6

800 + 100 + 8 = 908

b 2,354 + 1,652 = 4,006

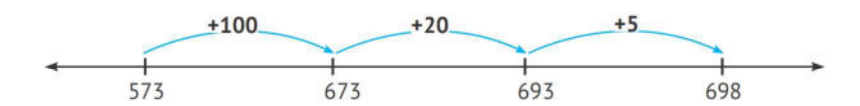
1,000 + 600 + 50 + 2

2,000 + 300 + 50 + 4

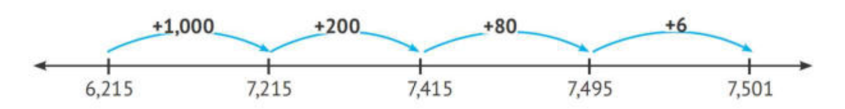
3,000 + 900 + 100 + 6 = 4,006

7 Use the **number line strategy** to find:

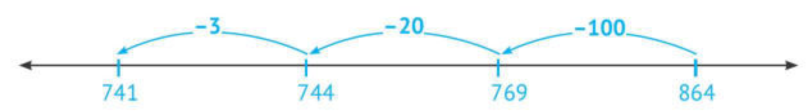
a 573 + 125 = 698



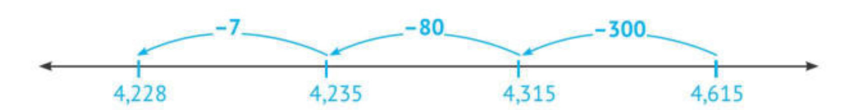
b 6,215 + 1,286 = 7,501



c 864 – 123 = 741



d 4,615 – 387 = 4,228



8 **Solve the following story problems:**

a Nehal had **245** LE and Sama has **368** LE.

How much money do they have altogether?

245 + 368 = 613 LE

b Omar had **7,158** LE, he bought a TV set for **2,420** LE.

Find the remaining money with Omar.

7,158 – 2,420 = 4,738 LE

c Ahmed had **984** LE, he bought a shirt for **245** LE and trousers for **455** LE.

How much money does he have left?

245 + 455 = 700 LE

984 – 700 = 284 LE

d The total number of books in a library is **1,258**, and **510** of which are borrowed and **200** are missing.

How many books are in the library now?

510 + 200 = 710 books

1,258 – 710 = 548 books

Multiplication and its Properties

First: Choose the correct answer:

1. $5 + 5 + 5 + 5 = \dots$ ($4 + 5$ or 4×5 or 5×5)
2. $8 + 8 + 8 = 4 \times \dots$ (8 or 3 or 6)
3. $9 + 9 = \dots$ (6×3 or $2 + 9$ or 9×9)
4. $4 \times 3 = \dots$ ($4 + 4 + 4$ or $3 + 3 + 3$ or $6 + 6 + 6$)
5. $6 \times 2 = \dots \times 6$ (2 or 6 or 12)
6. $\dots \times 8 = 4 \times 10$ (10 or 5 or 4)
7. $4 \times \dots = 6 \times 6$ (6 or 4 or 9)
8. $6 \times \dots = 54$ (9 or 5 or 8)
9. $\dots \times 8 = 32$ (5 or 8 or 4)
10. $4 \times 9 = (4 \times 5) + (4 \times \dots)$ (4 or 5 or 9)
11. $8 \times \dots = (8 X 3) + (8 X 7)$ (3 or 10 or 8)
12. $\dots \times \dots = (3 \times 2) + (3 \times 4)$ (6×6 or 3×8 or 3×6)
13. $5 \times 7 = \dots$
    ($(5 \times 3) + (5 \times 4)$ or $(2 \times 3) + (3 \times 4)$ or $(5 \times 7) + (7 \times 5)$)
14. $4 \times 10 = \dots$ (14 or 40 or 140)
15. $8 \times \dots = 4{,}000$ (50 or 500 or 5,000)
16. $50 \times \dots = 10{,}000$ (200 or 2,000 or 20,000)
17. $400 \times \dots = 2{,}000$ (5 or 50 or 500)
18. $8 \times 7 \times 10 = \dots \times 10$ (56 or 80 or 70)
19. $5 \times 6 \times \dots = 3 \times 100$ (30 or 10 or 300)
20. $\dots \times 8 \times 10 = 4 \times 100$ (400 or 4 or 5)
21. $6 \times 30 = \dots \times 10$ (180 or 18 or 6)
22. $4 \times 20 = 8 \times \dots$ (10 or 80 or 20)
23. $60 \times 20 = \dots$ (12 or 120 or 1,200)

24 400 × .... = 24,000 (6 or (60) or 600)

25 50 × .... = 10,000 (20 or (200) or 2,000)

26 9 × 7 = (10 × 7) – .... (1 or 9 or (7))

27 9 × .... = (10 × 6) – 6 ((6) or 7 or 9)

28 24 ÷ 4 = ... (4 or (6) or 3)

29 .... ÷ 2 = 9 ((18) or 9 or 16)

30 36 ÷ .... = 4 ((9) or 8 or 6)

Second: Complete the following:

1 7 + 7 + 7 + 7 + 7 = ..7.. × ..5..

2 4 + 4 + 4 = 2 × ..6..

3 4 × 4 = 8 + ..8..

4 7 × 3 = ..7.. + ..7.. + ..7..

5 9 × 8 = ..8.. × 9

6 ..5.. × 6 = 3 × 10

7 5 × ..4.. = 2 × 10

8 9 × ..7.. = 63

9 ..4.. × 7 = 28

10 6 × 7 = (6 × 2) + (6 × ..5..)

11 3 × ..8.. = (3 × 6) + (3 × 2)

12 ..9.. × ..10.. = (9 × 7) + (9 × 3)

13 3 × 9 = (..3.. × 2) + (..3.. × 7)

14 8 × 10 = ..80..

15 6 × 2,000 = 12,000

16 70 × 200 = 14,000

17 500 × ..4.. = 2,000

18. $7 \times 6 \times 10 =$ 42 $\times 10$
19. $5 \times 8 \times$ 10 $= 4 \times 100$
20. 5 $\times 6 \times 10 = 3 \times 100$
21. $8 \times 60 =$ 48 $\times 10$
22. $3 \times 30 = 9 \times$ 10
23. $40 \times 40 =$ 1,600
24. $900 \times$ 70 $= 63,000$
25. $50 \times$ 20 $= 1,000$
26. $9 \times 5 = (10 \times 5) -$ 5
27. $9 \times$ 4 $= (10 \times 4) - 4$
28. $28 \div 4 =$ 7
29. 42 $\div 7 = 6$
30. $72 \div$ 8 $= 9$

Third: Answer the following:

1 Complete in the same pattern :

a) 0 , 2 , 4 , 6 , 8 , 10 , 12 , 14 , 16

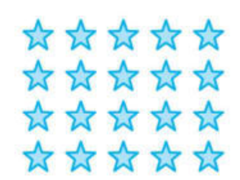
b) 30 , 27 , 24 , 21 , 18 , 15 , 12 , 9

c) 0 , 8 , 16 , 24 , 32 , 40 , 48 , 56 , 64

d) 90 , 81 , 72 , 63 , 54 , 45 , 36 , 27

2 Look at each array, then complete:



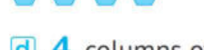



a) 3 rows of 4
3 × 4 = 12

b) 2 rows of 6
2 × 6 = 12

c) 4 rows of 5
4 × 5 = 20



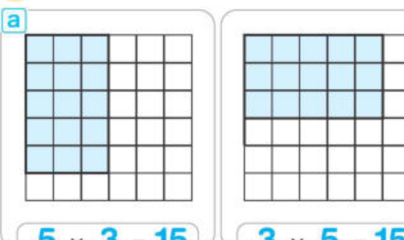
d) 4 columns of 3
4 × 3 = 12

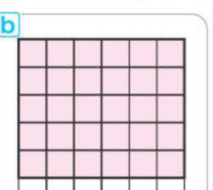
e) 6 columns of 2
6 × 2 = 12

f) 5 columns of 4
5 × 4 = 20

3 **Complete using the Commutative Property of Multiplication:**

a

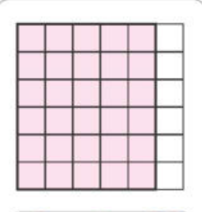




5 × 3 = 15 3 × 5 = 15

So, 5 × 3 = 3 × 5

b

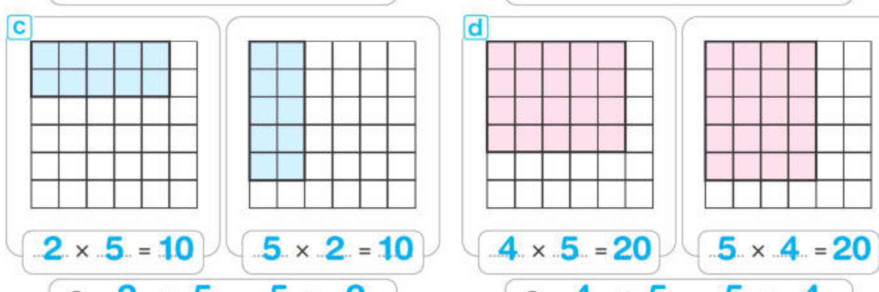


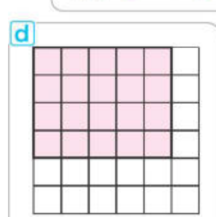
5 × 6 = 30 6 × 5 = 30



So, 5 × 6 = 6 × 5

c





2 × 5 = 10 5 × 2 = 10

So, 2 × 5 = 5 × 2

d

4 × 5 = 20 5 × 4 = 20

So, 4 × 5 = 5 × 4

4 **Write the factor pairs and factors of each number :**

a 20

1 × 20 20 × 1

2 × 10 10 × 2

4 × 5 5 × 4

Factors of the number 20 are:

1, 2, 4, 5, 10, 20

b 18

1 × 18 18 × 1

2 × 9 9 × 2

3 × 6 6 × 3

Factors of the number 18 are:

1, 2, 3, 6, 9, 18

c 15

1 × 15 15 × 1

3 × 5 5 × 3

Factors of the number 15 are:

1, 3, 5, 15

d 9

1 × 9 9 × 1

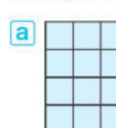
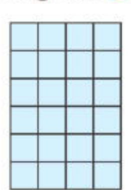
3 × 3

Factors of the number 9 are:

1, 3, 9

5 Complete using the Distributve Property:

a

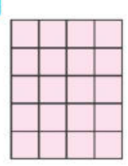
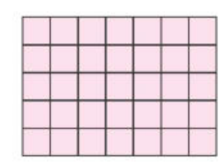



(...6... × ...3...) + (...6... × ...4...)

= ...18... + ...24... = ...42...



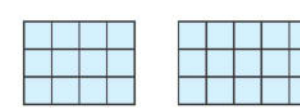
b

(...5... × ...4...) + (...5... × ...7...)

= ...20... + ...35... = ...55...

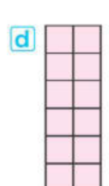
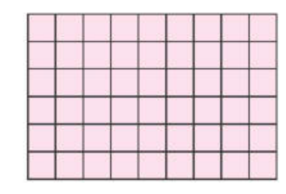
c



(...3... × ...4...) + (...3... × ...5...)

= ...12... + ...15... = ...27...

d

(...6... × ...2...) + (...6... × ...9...)

= ...12... + ...54... = ...66...

6 Farah went to the store to buy rolls for a big family dinner. She bought **6** bags of rolls, each one contained **7** rolls.

How many rolls did Farah buy ?

6 X 7 = 42 rolls

7 A basket of apples holds **8** apples. How many apples are there in **4** bags?

8 X 4 = 32 apples

8 Amir packed **5** boxes full of cans. Each box contains **10** cans.

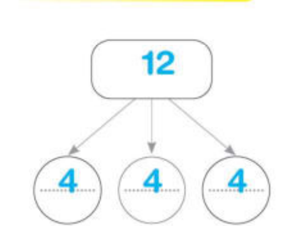
How many cans did Amir pack in all?

5 X 10 = 50 cans

9 Each cat needs 3 fish for lunch.

How many cats can we feed if we have 12 fish.

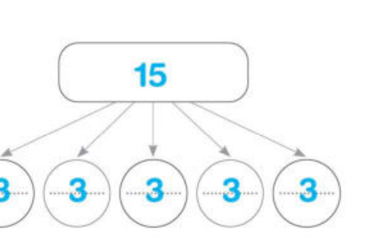
Draw a part–part–whole model to show your answer.



$12 \div 3 = 4$ cats

10 There are 15 oranges that need to be divided equally between 5 baskets.

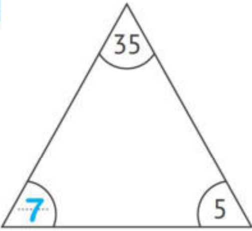
Draw a part–part–whole model to show your answer.



$15 \div 5 = 3$ oranges

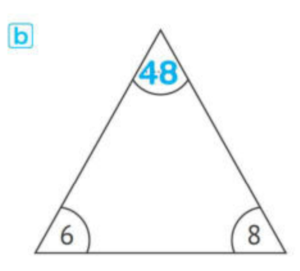

Find the missing factors in the triangles, then complete:

a



1. $7 \times 5 = 35$
2. $5 \times 7 = 35$
3. $35 \div 7 = 5$
4. $35 \div 5 = 7$

b



1. $6 \times 8 = 48$
2. $8 \times 6 = 48$
3. $48 \div 6 = 8$
4. $48 \div 8 = 6$

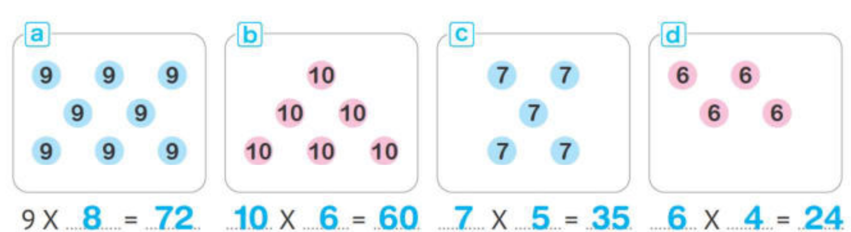
12 Complete the tables below:

X	0	1	2	3	4	5	6	7	8	9	10
0	0	0	0	0	0	0	0	0	0	0	0
1	0	1	2	3	4	5	6	7	8	9	10
2	0	2	4	6	8	10	12	14	16	18	20
3	0	3	6	9	12	15	18	21	24	27	30
4	0	4	8	12	16	20	24	28	32	36	40
5	0	5	10	15	20	25	30	35	40	45	50

X	0	1	2	3	4	5	6	7	8	9	10
6	0	6	12	18	24	30	36	42	84	54	60
7	0	7	14	21	28	35	42	49	56	63	70
8	0	8	16	24	32	40	48	56	64	72	80
9	0	9	18	27	36	45	54	63	72	81	90
10	0	10	20	30	40	50	60	70	80	90	100

X	0	1	2	3	4	5	6	7	8	9	10
0	0	0	0	0	0	0	0	0	0	0	0
1	0	1	2	3	4	5	6	7	8	9	10

13 What is the value of each box:



9 X 8 = 72   10 X 6 = 60   7 X 5 = 35   6 X 4 = 24

Geometry and Measurements

First: Choose the correct answer :

1. 5 cm = ... mm (5 or 50 or 500)
2. 6 m = ... cm (6 or 60 or 600)
3. 20 cm = ...mm (20 or 200 or 2,000)
4. 20 m = ... cm (20 or 200 or 2,000)
5. 700 mm = ... cm (70 or 700 or 7,000)
6. 90,000 cm = ... m (9,000 or 900 or 90)
7. 1 hour = ... minutes (60 or 15 or 20)
8. Half of an hour = ... minutes (60 or 15 or 30)
9. Quarter of an hour = ... minutes (60 or 15 or 20)
10. One day = ... hours (24 or 60 or 12)
11. 2 liters = ... milliliters (200 or 2,000 or 20,000)
12. 10 liters = ... milliliters (100 or 1,000 or 10,000)
13. 50,000 milliliters = ... liters (5 or 50 or 500)
14. The suitable length unit to measure the height of a **tree** is ....
    (millimeter or centimeter or meter)
15. The suitable length unit to measure the length of an **insect** is ....
    (millimeter or centimeter or meter)
16. The suitable length unit to measure the length of an **eraser** is ....
    (millimeter or centimeter or meter)
17. Salma started training at 4:00 and finished at 6:00.
    She spent .... hours in training. (2 or 4 or 6)
18. Ahmed started school at eight o'clock and continued studying for 40 minutes. Ahmed finished his studies at ....
    (8:00 or 12:00 or 8:40)

19 The **triangle** has .... sides. (3 or 4 or 5)

20 The .... has **5** sides. (quadrilateral or pentagon or hexagon)

21 All sides are **equal** in the .... (rectangle or kite or rhombus)

22 The .... is a quadrilateral that has **only one parallel pair of opposite sides**. (triangle or rhombus or trapezoid)

23 The .... is a quadrilateral that has **4** right angles. (parallelogram or rectangle or trapezoid)

24 The best unit of capacity to measure the volume of liquid in a **spoonful of medicine** is .... (milliliter or liter or centimeter)

25 The best unit of capacity to measure the volume of **water in a swimming pool** is .... (milliliter or liter or centimeter)

26 **Centimeter** is used to measure .... (length or time or capacity)

27 **Liter** is used to measure .... (length or time or capacity)

28 **Minute** is used to measure .... (length or time or capacity)

29 **Milliliter** is used to measure .... (length or time or capacity)

30 **Meter** is used to measure .... (length or time or capacity)

Second: Complete the following:

1 6 **cm** = 60 **mm**

2 10 **cm** = 100 **mm**

3 4 **m** = 400 **cm**

4 50 **m** = 5,000 **cm**

5 900 **mm** = 90 **cm**

6 4,000 **cm** = 40 **m**

7 60 **minutes** = 1 **hour(s)**

8 **One day** = 24 **hours**

9 7 **liters** = 7,000 **milliliters**

10 10 **liters** = 10,000 **milliliters**

11 90,000 **milliliters** = 90 **liters**

12 Adam went to school at 8:00 am and left school for home at 12:00 pm.

So, Adam spent 4 hours in school.

13 The **quadrilateral** has 4 sides.

14 The hexagon has **6** vertices.

15 In the **square**, all sides are equal in length.

16 The **kite** is a quadrilateral that has two pairs of adjacent sides which are equal in length.

17 The best unit to measure the volume of liquid **in a cup full of coffee is** milliliter .

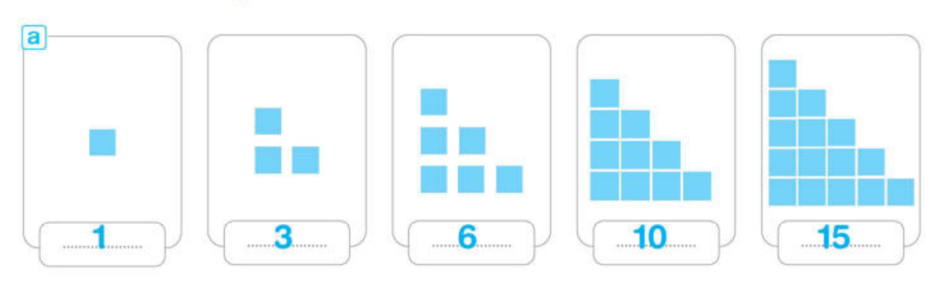
18 The best unit to measure **your height** is centimeter

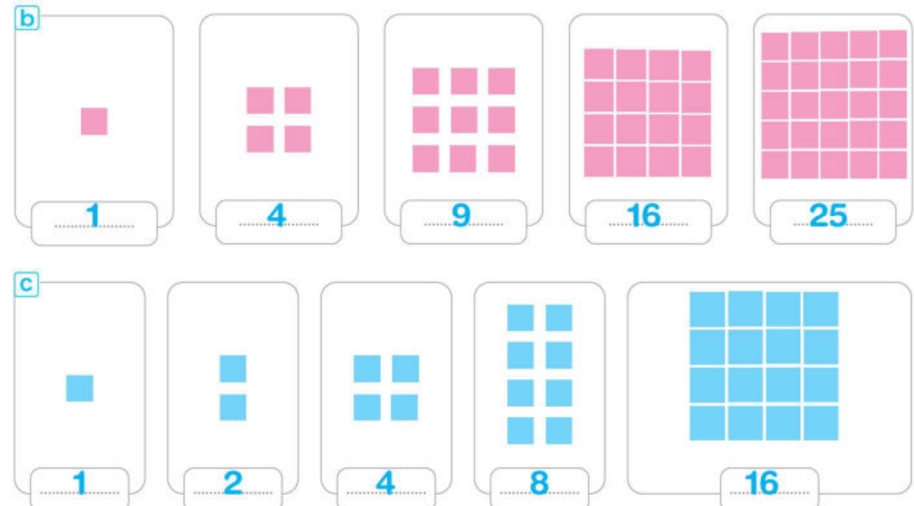
19 **Millimeter** is used to measure capacity .

20 **An hour** is used to measure time .

Third: Answer the following:

1 **Look at the images, then figure out the next and previous images in the same pattern:**





2 Draw the hands and write the time:

a 3:00 — It's 3 o'clock.

b 3:30 — It's half past 3.

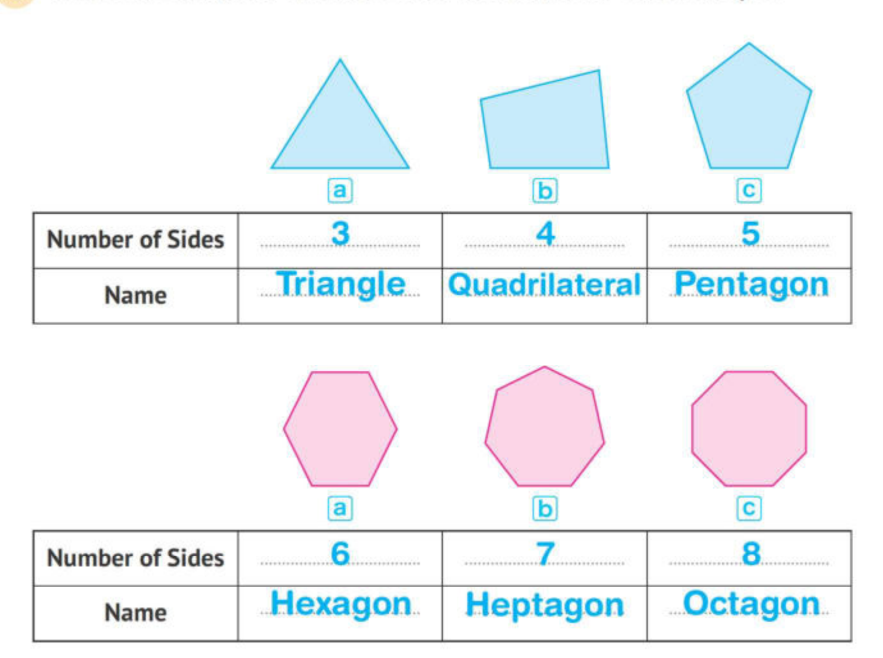
c 3:10 — It's 10 past 3.

d 3:40 — It's 20 to 4.

e 3:20 — It's 20 past 4.

f 3:50 — It's 10 to 4.

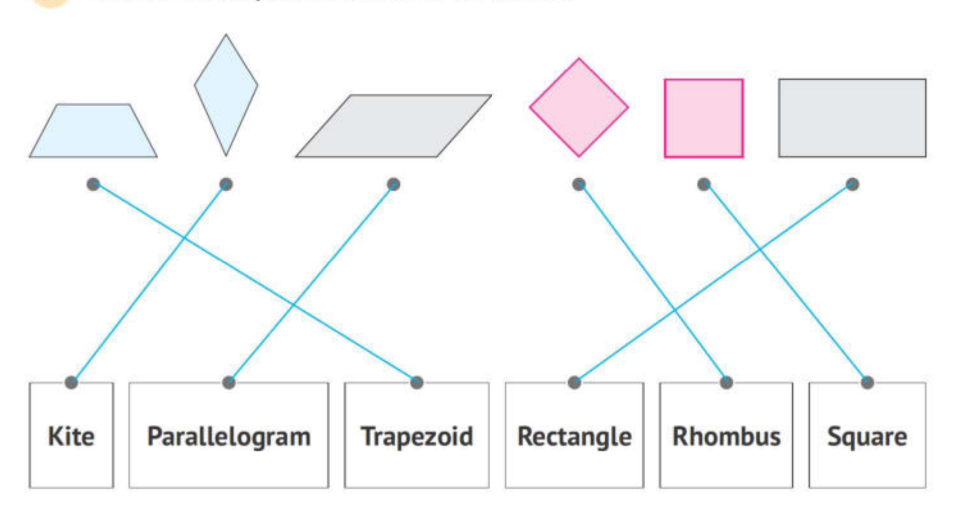
3 Write the number of sides and the name of each shape:



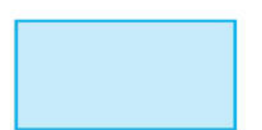
	a	b	c
Number of Sides	3	4	5
Name	Triangle	Quadrilateral	Pentagon

	a	b	c
Number of Sides	6	7	8
Name	Hexagon	Heptagon	Octagon

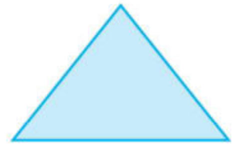
4 Match each quadrilateral to its name:



5 Use a ruler to measure the length of each side, then find the perimeter of each of the following shapes:

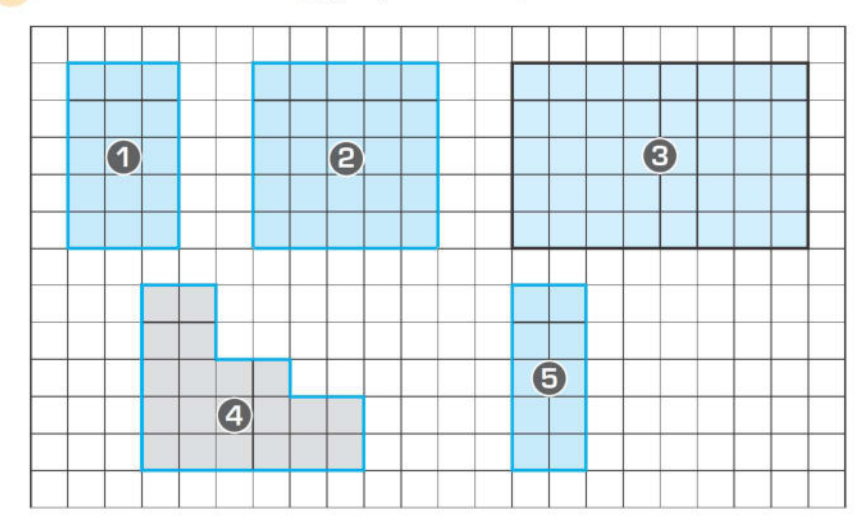






a Perimeter = 12 cm b Perimeter = 10 cm c Perimeter = 10 cm

6 Look at the following grid, then complete the table:



Shape	Perimeter	Area
1	16	15
2	20	25
3	26	40
4	22	20
5	14	10

Model Exams

Model 1

First: **Choose the correct answer:**

a) Twenty five thousand, twenty five **(in standard form)**: .... ((25,025) or 25,250 or 25,205)

b) 4 + 4 + 4 + 4 + 4 = ... (4 X 4 or 5 + 4 or (5 x 4))

c) 50 cm = ... mm (50 or (500) or 5,000)

d) The **smallest** 5-digit number is .... (99,999 or 10,234 or (10,000))

e) .... ÷ 8 = 4 ((32) or 2 or 12)

Second: **Complete the following:**

a) 6 X 8 = ...**8**... X 6

b) The **place value** of the digit 0 in 2**0**,158 is **Thousands**

c) 45,000 + 45 = **45,045**

d) The time shown on the opposite clock is **20 past 9**



e) The **quadrilateral** has ...**4**... sides.

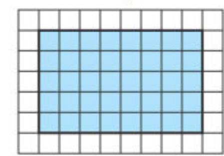
Third: **Answer the following:**

a) Arrange the following numbers in an **ascending** order:

42,402 , 42,204 , 42,024 , 42,420 , 42,240

• **42,024** , **42,204** , **42,240** , **42,402** , **42,420**

b) Find the area and the perimeter of each of the following shapes:





• Area = ...**40**... square units
• Perimeter = ...**26**... length units

• Area = ...**35**... square units
• Perimeter = ...**24**... length units

c) Mazen bought a shirt for **245** LE and bought a T-shirt for **188** LE.
How much money did Mazen spend ? **245 + 188 = 433 LE**

Model 2

First: Choose the correct answer:

a) 16 m = ... cm (160 or 1,600 or 16,000)

b) 5 + 400,000 + 400 + 5,000 = ... (5,454 or 405,405 or 454,500)

c) 6 + 6 + 6 + 6 + 6 = 3 X .... (5 or 6 or 10)

d) The **value** of the digit 3 in 15,**3**21 is .... (3,000 or 300 or 30)

e) 8 X .... = 4 X 6 (4 or 24 or 3)

Second: Complete the following:

a) 900 Thousands = 90,000 Tens

b) The number that comes just **before** 20,000 is 19,999

c) 20 X 10 = 4 X 5 X 10

d) In the **square**, all sides are equal in length

e) Five hundred ninety-four thousand, four hundred fourteen **(in standard form)** is 594,414

Third: Answer the following:

a) Find the result:

- 4,125 + 2,925 = 7,050
- 8 X 9 = 72
- 7,254 – 835 = 6,419
- 45 ÷ 9 = 5

b) Write the time shown on the clock:



5:40

20 to 6



5:15

Quarter past 5

c) If each chair has 4 legs, then how many legs are there in 8 chairs?

8 X 4 = 32 Legs.

Model 3

First: Choose the correct answer:

a) 8 X 3 = ... (8 + 8 or 4 + 6 or 4 x 6)

b) 50 Thousands + 50 Hundreds = ...

(50,500 or 55,000 or 505,000)

c) 10 Thousands = ... Hundreds (10,000 or 1,000 or 100)

d) The best unit to measure the length of an **orange** is ....

(millimeter or centimeter or meter)

e) 1,000 mm = ... cm (100 or 10 or 1)

Second: Complete the following:

a) 9 X 12 =(9X10) (9X2) = 90 + 18 = 108 **(Using Distributve Property)**

d) The **triangle** has ....3.... sides .

c) The **place value** of the digit 9 in 78,952 is Hundreds

b) 8 X ....1.... = 8

e) The **smallest** 5-different-digit number is ....10,234.... .

Third: Answer the following:

a) Complete using (< , = or >):

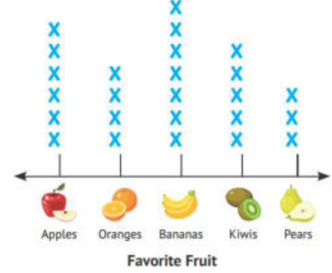
- 75,258 < 75,528
- 80 Thousands > 800 Tens
- 6 X 6 = 4 x 9
- 28 ÷ 4 < 32 ÷ 4

b) Hana had **1,250** LE, she bought some clothes for **625** LE.

How much money is left with Hana?

1,250 – 625 = 625 LE

c) The opposite line plot shows the favorite fruit for 25 children:



- Which fruit is liked the **most**?

Bananas

- Which fruit is liked the **least**?

Pears

Model 4

First: Choose the correct answer:

a 1 Hour = ... minutes (15 or 30 or (60))

b 8 X .... = 40,000 (50 or 500 or (5,000))

c 400 + 0 + 0 + 5 = ... ((405) or 4,005 or 400,005)

d The **value** of the digit 6 in 25**6**,823 is ....

(600 or (6,000) or 60,000)

e 63 ÷ 7 = ... (7 or 8 or (9))

Second: Complete the following:

a 4 + 4 + 4 + 4 + 4 + 4 + 4 = ...7... x ...4...

b 87,201 = ...1... One + ...2... Hundreds + ...87... Thousands + ...0... Tens

c The **quadrilateral** has ...4... sides

d 5 X 14 = (5 X 10) + (5 X ...4...) = ...50... + ...20... = ...70...

e The number that comes just **before** 45,200 is ...45,199

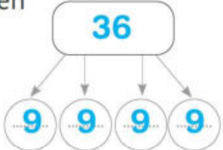
Third: Answer the following:

a Arrange the following numbers in a descending order:

1,000 , 999 , 10,000 , 9,999 , 1,100

• ...10,000... , ...9,999... , ...1,100... , ...1,000... , ...999...

b The teacher has **36** crayons to share equally between **4** students. What is the share of each student?
Complete the opposite part–part–whole model.



...36 ÷ 4 = 9 Crayons...

c Look at each array, then complete:





a ...4... rows of ...4...
...4... × ...4... = ...16

b ...3... rows of ...6...
...3... × ...6... = ...18

Model 5

First: Choose the correct answer:

a) 50 + 3,000 + 800 + 700,000 = ... (73,850 or 703,850 or 70,385)

b) (5 x 3) + (5 x 4) = ... (5 x 7 or 5 x 12 or 10 x 7)

c) One day = ... hours (60 or 24 or 12)

d) .... ÷ 6 = 7 (42 or 7 or 6)

e) The **greatest** 5-digit number is .... (90,000 or 99,000 or 99,999)

Second: Complete the following:

a) 9 x ...6... = 54

b) The **place value** of the digit 6 in **6**21,005 is Hundreds Thousands

c) 45,045 = 45 + 45,000

d) The opposite figure is called rectangle

e) (8 x 10) + (8 x 7) = 8 X ...17...

Third: Answer the following:

a) Use the number line strategy to add:

- 756 + 123 = ...879...

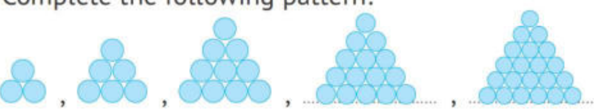


b) Use the Place Value Strategy to subtract: 8,542 – 1,239 = 7,303.

Thousands	Hundreds	Tens	Ones
7	3	0	3

Check: ...1,239... + ...7,303... = ...8,542...

c) Complete the following pattern:



Model 6

First: Choose the correct answer:

a) 20 Thousands + 2 Tens = ... (22,000 or 20,020 or 20,002)

b) 9 X 7 = (7 x 10) – .... (9 or 10 or 7)

c) 20 liters = ... milliliters (20,000 or 2,000 or 200)

d) Two hundred thousand, twenty **(in standard form)**: ....

(220,000 or 202,000 or 200,020)

e) 4 + 4 + 4 + 4 = 2 X .... (4 or 8 or 16)

Second: Complete the following:

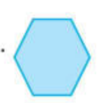
a) The **smallest** number that can be formed from the digits

(5, 8, 0, 2 and 6) is 20,568 .

b) The **place value** of the digit 4 in 245,630 is Ten Thousands

c) 6 X 200 = 1,200

d) The opposite figure is called hexagon .



e) 3 X 50 = 15 X 10

Third: Answer the following:

a) Arrange the following numbers in a descending order:

6,584 , 8,654 , 4,568 , 6,485 , 5,684

• 8,654 , 6,584 , 6,485 , 5,684 , 4,568

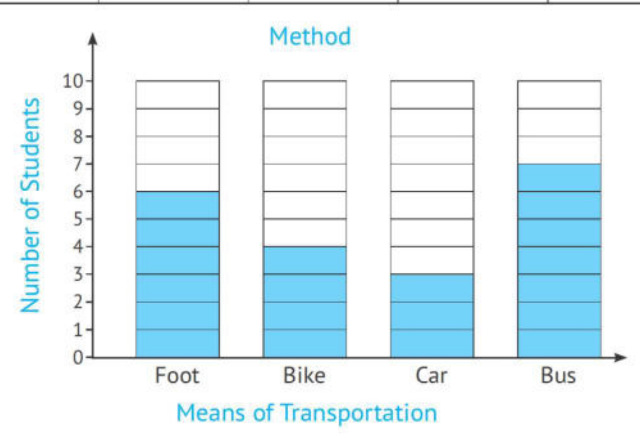
b) Sama has **756** LE and Yara has **318** LE.

How much money do they have altogether?

756 + 318 = 1,074 LE

c The following table shows the methods used by 20 students to reach school, use it to complete the bar graph below:

Method	On foot	By bike	By car	By bus
Number of Students	6	4	3	7



Model 7

First: Choose the correct answer:

a The number .... comes just **after** 21,000 (20,999 or 22,000 or 21,001)

b 3,000 milliliters = ... liters (3 or 30 or 300)

c 9 + 9 = ... X 6 (2 or 3 or 9)

d The **value** of the digit 1 in **1**0,234 is .... (10 or 1,000 or 10,000)

e 9 X 5 = (........ X 10) – 5 (9 or 5 or 10)

Second: Complete the following:

a 500 Tens = ...5.... Thousands

b The number that comes just **after** 250,999 is 251,000

c 6 X 4 = ...6.... + ...6.... + ...6.... + ...6....

d 30 , 27 , 24 , 21 , 18 , 15 , 12

e The time shown on the opposite clock is 5 past 8



Third: Answer the following:

a Find the result :

- 8,997 + 1,003 = 10,000
- 7 X 4 = 28
- 6,258 − 128 = 6,130
- 21 ÷ 3 = 7

b Write the **factor pairs** and **factors** of each number:

16

1 X 16 16 X 1
2 X 8 8 X 2
4 X 4

The factors of 16 are :
1, 2, 4, 8, 16

8

1 X 8 8 X 1
2 X 4 4 X 2

The factors of 8 are :
1, 2, 4, 8

Model 8

First: Choose the correct answer:

a 28 ÷ .... = 7 (7 or 28 or (4))

b The **smallest** number that can be formed from the digits (7, 3, 8, 0 and 5) is .... (87,530 or (30,578) or 35,780)

c The **pentagon** has .... sides (4 or (5) or 6)

d **Liter** is used to measure the .... (time or length or (capacity))

e The **smallest** 6-digit number is .... ((100,000) or 999,999 or 102,345)

Second: Complete the following:

a (9 X 10) − 9 = 9 X 9

b The area of the opposite shape = 6 square units

c 204,020 **(in word form)**: Two hundred four thousand, twenty

d 5 X 0 = 0

e 85,201 = 2 Hundreds + 1 One + 0 Tens + 85 Thousands

Third: Answer the following:

a Complete using (<, =, >):

- 50,003 [>] 9,875
- 7 X 7 [>] 6 X 8
- 80 + 800,000 [<] 880,000
- 36 ÷ 4 [=] 45 ÷ 5

b Eyad has **542** LE and Fares has **325** LE.

Find the difference between their money.

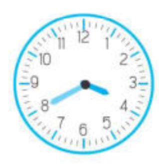
542 – 325 = 217 LE

c Draw the analog clock hands and write the numbers of the digital clock:





It's 10 past 7.





It's 20 to 4.

Model 9

First: Choose the correct answer:

a 500,500 = 500 + ... (500 or 500,500 or (500,000))

b **Centimeter** is used to measure the .... (time or (length) or capacity)

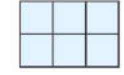
c 2,000 + 0 + 3 = ... ((2,003) or 200,003 or 20,003)

d 5 X 80 = 4 X .... (10 or (100) or 1,000)

e 6 X .... = 48 (6 or 7 or (8))

Second: Complete the following:

a The **perimeter** of the opposite shape = ...10... units



b ...35... ÷ 5 = 7

c The number 32,010 comes just **after** 32,009.

d 85 Thousands + 8 hundreds + 2 Ones = 85,802 **(in standard form)**

e 3 + 3 + 3 + 3 + 3 = ...5... X ...3...

Third: Answer the following:

a Arrange the following numbers in a descending order:

55,000 , 500,000 , 505,000 , 5,000 , 50,000

• 505,000 , 500,000 , 55,000 , 50,000 , 5,000

b The total number of books in a library is **250**,

120 of which are borrowed and **30** are missing . How many books are in the library now?

120 + 30 = 150

250 – 150 = 100

c Look at each array, then complete:

a 3 rows of 6

3 × 6 = 18

b 4 columns of 5

4 × 5 = 20

Model 10

First: Choose the correct answer:

a 50 X 20 = ... (100 or 1,000 or 10,000)

b **Minute** is used to measure the .... (length or capacity or time)

c (3 X 10) + (3 X 5) = ... (3 X 15 or 6 X 15 or 3 X 5)

d 100,100 = 100 + ... (100 or 100,000 or 10,000)

e The **place value** of the digit 8 in 2**8**,120 is ....

(Tens or Hundreds or Thousands)

Second: Complete the following:

a 20 Thousands + 20 Hundreds = 20,000 + 2,000 = 22,000

b The number that comes just **after** 25,009 is 25,010.

c 8 + 8 + 8 + 8 + 8 = 4 X 10

d XO , XXO , XXXO , XXXXO , XXXXXO **(in the same pattern)**

e The **greatest** 5-digit number formed from the digits (5 , 3 and 7) is 77,753

Third: Answer the following:

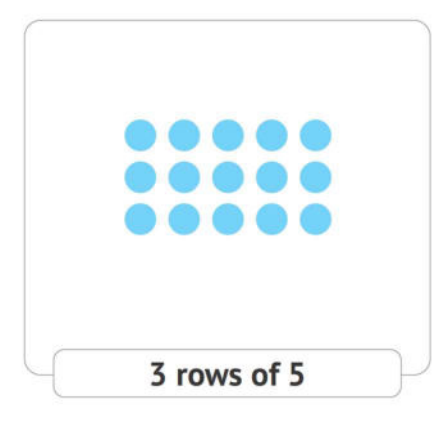
a Use the Place Value Strategy to add (456 + 628):

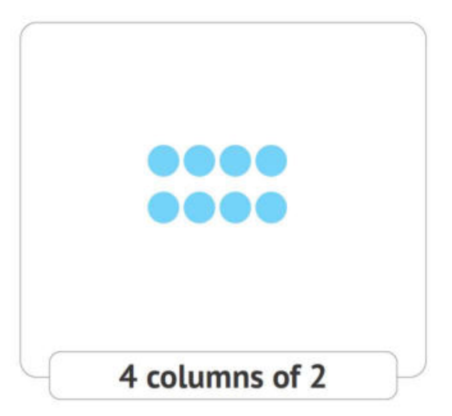
400 + 50 + 6

600 + 20 + 8

1,000 + 70 + 14 = 1,084

b Create an array:



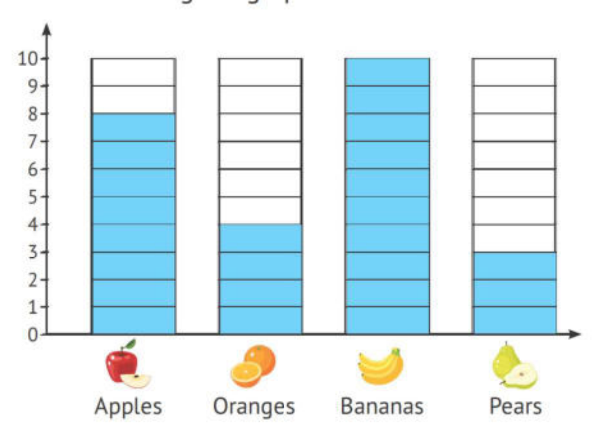


C The following table shows the favorite fruit for 25 students:

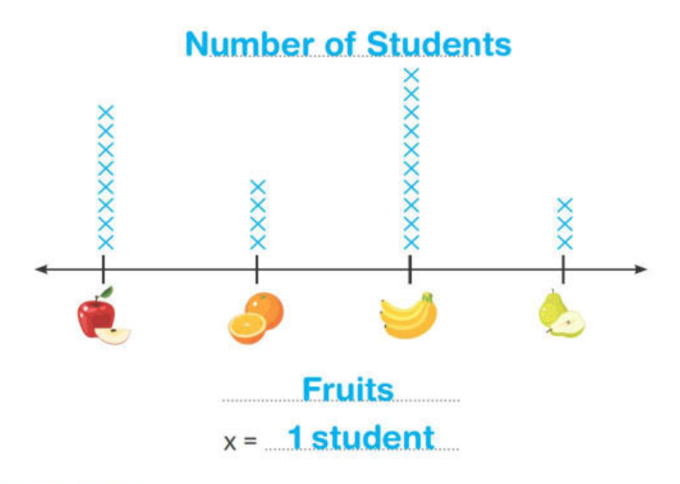
- Complete the following table:

Favorite Fruit	Apples	Oranges	Bananas	Pears
Tallies	𝍸 |||	||||	𝍸 𝍸	|||
Number of Students	8	4	10	3

- Complete the following bar graph:



- Complete the following line plot:



Guide Answers

Exercises on Chapter 1

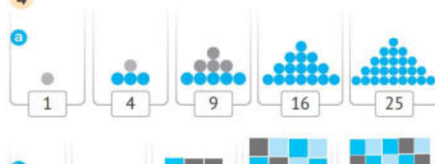
Lesson 1

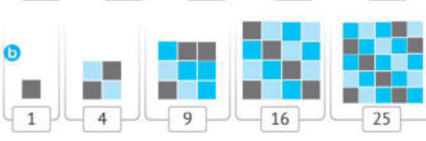
Patterns

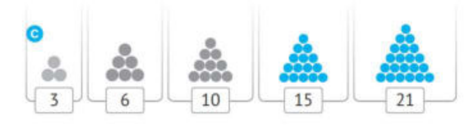
1. a → (3) b → (1) c → (2)
   d → (5) e → (6) f → (4)

2. a → (3) b → (1) c → (2)
   d → (5) e → (6) f → (4)

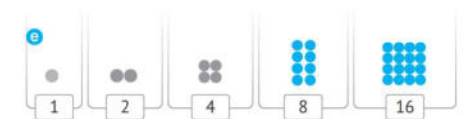
3. a ■ ▲ b ● ▲ c ● ▲ ■
   d ▲ ▲ e ▢ ◯ f AAAABBBB
   g UUnn h 90 , 100 i 20 , 10

4. a


b


c


d


e


5. a 12 , 13 , 14 , 15 , 16 , 17 , 18 , 19 → (+1)
   b 45 , 44 , 43 , 42 , 41 , 40 , 39 , 38 → (–1)
   c 22 , 24 , 26 , 28 , 30 , 32 , 34 , 36 → (+2)
   d 68 , 66 , 64 , 62 , 60 , 58 , 56 , 54 → (–2)
   e 10 , 13 , 16 , 19 , 22 , 25 , 28 , 31 → (+3)
   f 50 , 47 , 44 , 41 , 38 , 35 , 32 , 29 → (–3)
   g 5 , 10 , 15 , 20 , 25 , 30 , 35 , 40 → (+5)
   h 100 , 95 , 90 , 85 , 80 , 75 , 70 , 65 → (–5)
   i 0 , 10 , 20 , 30 , 40 , 50 , 60 , 70 → (+10)
   j 90 , 80 , 70 , 60 , 50 , 40 , 30 , 20 → (–10)

6. a 1 , 2 , 4 , 7 , 11 , 16 , 22 , 29 , 37 , 46
   b 1 , 2 , 4 , 8 , 16 , 32 , 64 , 128 , 256
   c 1 , 1 , 2 , 3 , 5 , 8 , 13 , 21 , 34

Accumulative Assessment 1

Up to Lesson (1)

1. a 35 b 352 c 80
   d 1 e 30

2. a 75 b 10 c 50
   d 85 e 20 , 25 , 30 , 35 , 40 , 45 , 50

3. ● ■ ◣ ● ▢ ◯
   b ① 338 ② 630 ③ 12 ④ 4
   c 125 + 215 = 340

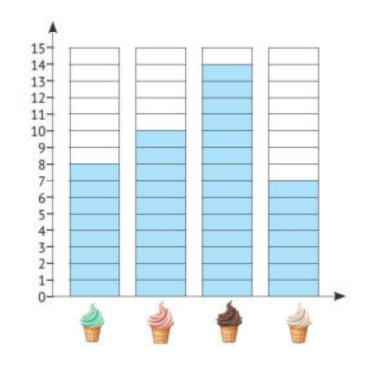
Lesson 2

More of Bar Graphs

1.

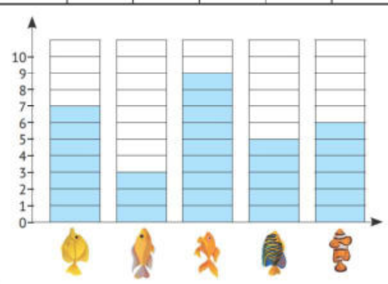
Ice cream				
Tally Marks	卌 III	卌 卌	卌 卌 IIII	卌 II
Number	8	10	14	7

Guide Answers



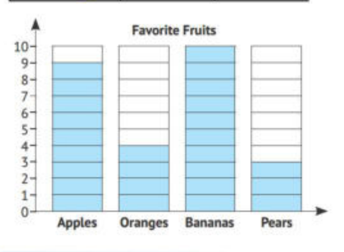
2

Fish					
Tally Marks	卌 ||	|||	卌 ||||	卌	卌 |
Number	7	3	9	5	6



3

Favorite Fruit	Tallies	Number of Children
Apples	卌 ||||	9
Oranges	||||	4
Bananas	卌 卌	10
Pears	|||	3

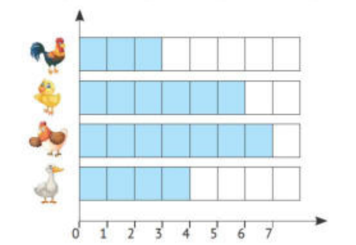




a 9 b $3 + 10 = 13$
c bananas d pears

4

Type of Bird				
Number of Birds	3	6	7	4



Accumulative Assessment 2

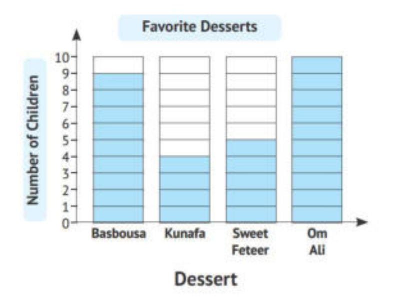
Up to Lesson (2)

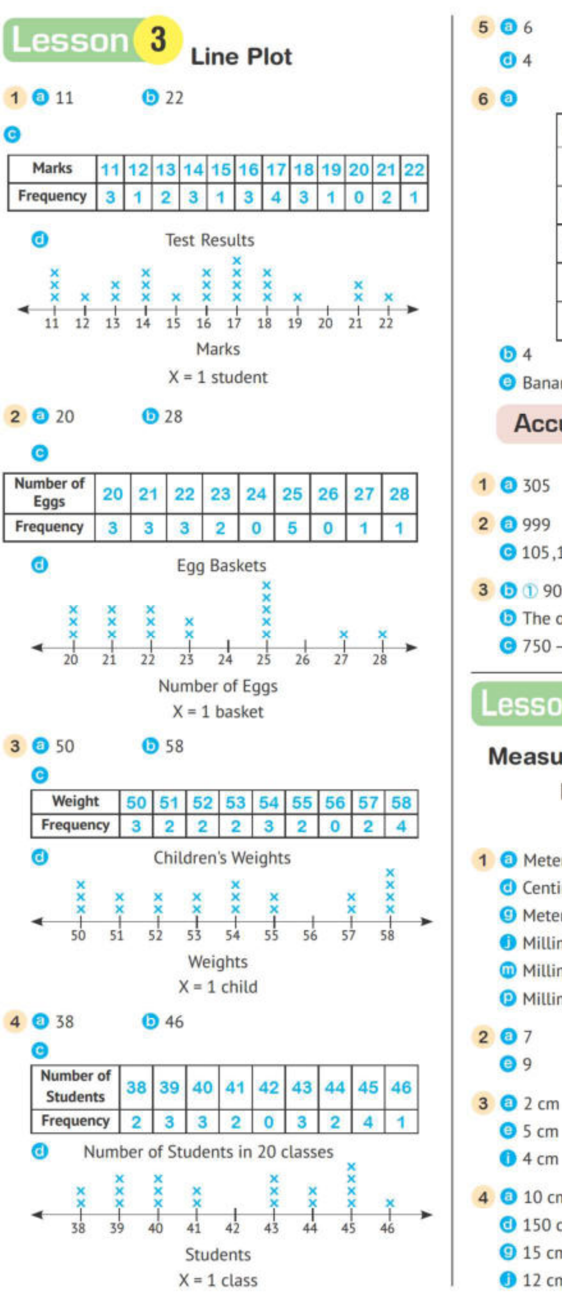
1 a 99 b 35 c 12
d 68 e 5

2 a 40 b 62 c 44
d e 10 , 20 , 30 , 40 , 50 , 60 , 70

3

Favorite Dessert	Tallies	Number of Children
Basbousa	卌 ||||	9
Kunafa	||||	4
Sweet Feteer	卌	5
Om Ali	卌 卌	10





Lesson 3 Line Plot

1 ⓐ 11 ⓑ 22

ⓒ

Marks	11	12	13	14	15	16	17	18	19	20	21	22
Frequency	3	1	2	3	1	3	4	3	1	0	2	1

ⓓ Test Results

Marks

X = 1 student

2 ⓐ 20 ⓑ 28

ⓒ

Number of Eggs	20	21	22	23	24	25	26	27	28
Frequency	3	3	3	2	0	5	0	1	1

ⓓ Egg Baskets

Number of Eggs

X = 1 basket

3 ⓐ 50 ⓑ 58

ⓒ

Weight	50	51	52	53	54	55	56	57	58
Frequency	3	2	2	2	3	2	0	2	4

ⓓ Children's Weights

Weights

X = 1 child

4 ⓐ 38 ⓑ 46

ⓒ

Number of Students	38	39	40	41	42	43	44	45	46
Frequency	2	3	3	2	0	3	2	4	1

ⓓ Number of Students in 20 classes

Students

X = 1 class

5 ⓐ 6 ⓑ 7 ⓒ 3
ⓓ 4 ⓔ Car ⓕ 7 − 6 = 1

6 ⓐ

Favorite Fruit	Number of Children
Apples	6
Oranges	4
Bananas	7
Kiwis	5
Pears	3

ⓑ 4 ⓒ 6 − 3 = 3 ⓓ 5 + 6 + 4 = 15
ⓔ Bananas ⓕ Pears

Accumulative Assessment 3

Up to Lesson (3)

1 ⓐ 305 ⓑ 827 ⓒ 110 ⓓ 579 ⓔ Tens

2 ⓐ 999 ⓑ 0
ⓒ 105,100,95,90,85,80,75 ⓓ 50 ⓔ 599

3 ⓑ ① 900 ② 40 ③ 113 ④ 714
ⓑ The order: 405 , 450 , 500 , 504 , 540
ⓒ 750 − 185 = 565 LE

Lessons 4–6

Measuring Lengths in (Centimeter, Meter, and Millimeter)

1 ⓐ Meter ⓑ Centimeter ⓒ Meter
ⓓ Centimeter ⓔ Centimeter ⓕ Meter
ⓖ Meter ⓗ Centimeter ⓘ Meter
ⓙ Millimeter ⓚ Centimeter ⓛ Centimeter
ⓜ Millimeter ⓝ Meter ⓞ Centimeter
ⓟ Millimeter

2 ⓐ 7 ⓑ 2 ⓒ 4 ⓓ 5
ⓔ 9 ⓕ 3 ⓖ 13

3 ⓐ 2 cm ⓑ 5 cm ⓒ 6 cm ⓓ 6 cm
ⓔ 5 cm ⓕ 3 cm ⓖ 6 cm ⓗ 3 cm
ⓘ 4 cm ⓙ 2 cm

4 ⓐ 10 cm ⓑ 2 mm ⓒ 25 m
ⓓ 150 cm ⓔ 25 cm ⓕ 4 m
ⓖ 15 cm ⓗ 3 m ⓘ 3 m
ⓙ 12 cm

5 ⓐ 100 cm ⓑ 900 cm ⓒ 200 cm
ⓓ 600 cm ⓔ 4 m ⓕ 3 m
ⓖ 7 m ⓗ 5 m ⓘ 80 mm
ⓙ 10 mm ⓚ 120 mm ⓛ 100 mm
ⓜ 500 cm ⓝ 540 mm ⓞ 6 cm
ⓟ 9 cm ⓠ 75 cm ⓡ 70 cm
ⓢ 90 cm ⓣ 12 cm

6 ⓐ 300 cm + 75 cm = 375 cm
ⓑ 200 cm + 20 cm = 220 cm
ⓒ 502 cm ⓓ 607 cm
ⓔ 945 cm ⓕ 460 cm

7 ⓐ 60 mm + 3 mm = 63 mm
ⓑ 200 mm + 4 mm = 204 m
ⓒ 152 mm ⓓ 167 mm
ⓔ 906 mm ⓕ 108 mm

8 ⓐ 2 m + 45 cm ⓑ 3 m + 72 cm
ⓒ 7 m + 50 cm ⓓ 1 m + 40 cm
ⓔ 8 m + 3 cm ⓕ 4 m + 2 cm

9 ⓐ 2 cm + 4 mm ⓑ 7 cm + 2 mm
ⓒ 10 cm + 2 mm ⓓ 60 cm + 7 mm
ⓔ 61 cm + 7 mm ⓕ 42 cm + 5 mm

10 ⓐ 5 cm ⓑ 4 cm ⓒ 2 cm

Accumulative Assessment 4

Up to Lesson (6)

1 ⓐ 105 ⓑ 1,500 ⓒ 11
ⓓ 310 ⓔ 987

2 ⓐ 2cm + 5 cm ⓑ 2 Hundreds + 0 Tens + 4 Ones
ⓒ 0 ⓓ 202
ⓓ ■ ● , ■ ●

3 ⓐ ① 900 ② 675
ⓑ ① > ② >
③ < ④ <
ⓒ 5cm, 500mm, 550cm, 50m

Exercises on Chapter 2

Lessons 1–4

Thousands, Ten Thousands, and Hundred Thousands – Numbers in Different Forms

First:

1 ⓐ Standard Form: 9,999
Word Form: Nine thousand, nine hundred ninety–nine

ⓑ Standard Form: 7,054
Word Form: Seven thousand, fifty–four

ⓒ Standard Form: 1,307
Word Form: One thousand, three hundred seven

ⓓ Standard Form: 5,816
Word Form: Five thousand, eight hundred sixteen

ⓔ Standard Form: 6,752
Word Form: Six thousand, seven hundred fifty–two

ⓕ Standard Form: 4,924
Word Form: Four thousand, nine hundred twenty–four

ⓖ Standard Form: 40,718
Word Form: Forty Thousand, seven hundred eighteen

ⓗ Standard Form: 29,104
Word Form: Twenty–nine thousand, one hundred four

ⓘ Standard Form: 30,008
Word Form: Thirty thousand, eight

ⓙ Standard Form: 920,512
Word Form: Nine hundred twenty thousand, five hundred twelve

ⓚ Standard Form: 275,112
Word Form: Two hundred seventy–five thousand, one hundred twelve

(i) Standard Form: 650,475

Word Form: Six hundred fifty thousand, four hundred seventy-five

2 (a)

Thousands			Hundreds	Tens	Ones
Hundreds	Tens	Ones			
		3	1	5	0

Standard Form: 3,150

Word Form: Three thousand, one hundred fifty

(b)

Thousands			Hundreds	Tens	Ones
Hundreds	Tens	Ones			
		4	2	5	7

Standard Form: 4,257

(c)

Thousands			Hundreds	Tens	Ones
Hundreds	Tens	Ones			
	8	0	0	7	6

Standard Form: 80,076

Word Form: Eighty thousand, seventy-six

(d)

Thousands			Hundreds	Tens	Ones
Hundreds	Tens	Ones			
	3	5	9	1	6

Standard Form: 35,916

(e)

Thousands			Hundreds	Tens	Ones
Hundreds	Tens	Ones			
1	0	5	0	1	5

Standard Form: 105,015

Word Form: One hundred five thousand, fifteen

(f)

Thousands			Hundreds	Tens	Ones
Hundreds	Tens	Ones			
8	2	5	4	0	6

Standard Form: 825,406

(g)

Thousands			Hundreds	Tens	Ones
Hundreds	Tens	Ones			
2	1	9	4	7	1

Standard Form: 219,471

Word Form: Two hundred nineteen thousand, four hundred seventy-one

(h)

Thousands			Hundreds	Tens	Ones
Hundreds	Tens	Ones			
9	0	9	9	9	0

Standard Form: 909,990

3 (a) → (3) (b) → (1) (c) → (5) (d) → (2)
(e) → (6) (f) → (4)

4 (a) → (2) (b) → (4) (c) → (1) (d) → (3)
(e) → (6) (f) → (5)

5 (a) 45,125 : Forty-five thousand, one hundred twenty-five

(b) 12,607 : Twelve thousand, six hundred seven

(c) 405,168 : Four hundred five thousand, one hundred sixty-eight

(d) 318,927 : Three hundred eighteen thousand, nine hundred twenty-seven

(e) 26,578 (f) 13,015 (g) 659,242 (h) 987,651

Second:

1 (a)

	Number	Place Value	Value
(a)	(1),234,567	Hundred Thousands	100,000
(b)	4(7)2,235	Ten Thousands	70,000
(c)	10(2),380	Thousands	2,000
(d)	540,(0)89	Hundreds	0
(e)	902,0(0)3	Tens	0
(f)	589,36(8)	Ones	8
(g)	7(8),9 112	Ten Thousands	80,000
(h)	987,(6)33	Hundreds	600
(i)	752,36(8)	Ones	8
(j)	(9)12,456	Hundred Thousands	900,000
(k)	25(0),147	Thousands	0
(l)	398,1(1)2	Tens	10

2 (a) 20,000 (b) 500 (c) 58,000
(d) 4,000 (e) 283,000 (f) 6,000
(g) 25,002 (h) 40,000 (i) 10,500 (j) 600

3 a 50 b 500 c 5,000 d 500
e 5,000 f 50,000 g 5,000 h 50,000
i 7 j 700 k 50 l 6,000
m 90 n 500 o 9,000 p 1

4 a 70,000 + 5,000 + 800 + 20 + 5
b 500,000 + 60,000 + 1 000 + 200 + 30 + 6
c 20,000 + 3,000 + 400 + 50 + 8
d 600,000 + 2,000 + 800 + 3
e 80,000 + 20 + 8 f 900,000 + 400 + 2
g 600,000 + 2,000 h 200,000 + 2,000 + 50

5 a 45, 2, 1, 5 b 272, 6, 5, 4 c 0, 5, 2, 61
d 7, 5, 8, 920 e 500, 0, 0, 2 f 62, 0, 0, 0
g 780, 0, 0, 3

6 a 7,957 b 9,855 c 7,042
d 96,471 e 294,257 f 40,900
g 600,017 h 970,000 i 800,600

7 a 45,896 b 8,657 c 935,742
d 25,063 e 56,087 f 500,070
g 410,203

Third:

1 a < b < c < d < e < f > g > h =
i < j < k > l < m = n > o = p >
q > r > s > t < u < v <

2 a ① 21,789 , 45,368 , 62,034 , 78,023 , 98,102
② 98,102 , 78,023 , 62,034 , 45,368 , 21,789
b ① 20,368 , 32,023 , 54,987 , 75,023 , 98,123
② 98,123 , 75,023 , 54,287 , 32,023 , 20,368
c ① 500,368 , 500,386 , 500,638 , 500,683 , 500,863
② 500,863 , 500,683 , 500,638 , 500,386 , 500,368
d ① 700,046 , 700,064 , 700,406 , 700,460 , 700,604
② 700,604 , 700,460 , 700,406 , 700,064 , 700,046
e ① 5,023 , 5,320 , 7,002 , 9,012 , 9,120
② 9,120 , 9,012 , 7,002 , 5,320 , 5,023
f ① 166,145 , 166,154 , 166,415 , 166,451 , 166,541
② 166,541 , 166,451 , 166,415 , 166,154 , 166,145

3 a 9,999 b 99,999 c 999,999 d 1,000
e 10,000 f 100,000 g 9,876 h 98,765
i 987,654 j 1,023 k 10,234 l 102,345
m 1,111 n 111,111

4 a 97,543 , 34,579 b 76,432 , 23,467
c 986,531 , 135,689 d 985,432 , 234,589
e 97,620 , 20,679 f 87,630 , 30,678
g 876,520 , 205,678 h 876,210 , 102,678

5 a 55,554 , 44,445 b 77,743 , 33,347
c 99,731 , 11,379

6 a 999,993 , 333,339 b 777,754 , 444,457
c 999,821 , 111,289 d 887,432 , 223,478

7 a 325,364 , 325,366 b 145,119 , 145,121
c 49,999 , 50,001 d 636,699 , 636,701
e 699,998 , 700,000 f 85,099 , 85,101
g 9,999 , 10,001 h 9,998 , 10,000
i 998 , 1,000

8 a 366,259 b 154,999 c 15,999
d 5,237 e 7,124 f 133,021

Accumulative Assessment 5

Up to Lesson (4)

1 a 74,385 b 75,075 c 503
d 100,000 e 85,008

2 a Tens b 501,000
c 25,042 , 25,052 , 25,062 d 99,999
e 23,900

3 a 45,036 , 45,063 , 45,306 , 45,603 , 45,630
b ① < ② < ③ < ④ <

Lesson 5

Arrays

1 a Number of rows is 3
- 5 - 5 + 5 + 5 = 15
Number of columns is 5
- 3 - 3 + 3 + 3 + 3 + 3 = 15
- 3 , 5 or 5 , 3

b Number of rows is 2
- 5 - 5 + 5 = 10
Number of columns is 5
- 2 - 2 + 2 + 2 + 2 + 2 = 10
- 2 , 5 or 5 , 2

c Number of rows is 4
- 2 - 2 + 2 + 2 + 2 = 8
Number of columns is 2
- 4 - 4 + 4 = 8
- 4 , 2 or 2 , 4

ⓓ Number of rows is 4

- 6 - 6 + 6 + 6 + 6 = 24

Number of columns is 6

- 4 - 4 + 4 + 4 + 4 + 4 + 4 = 24

- 4 , 6 or 6 , 4

ⓔ Number of rows is 2

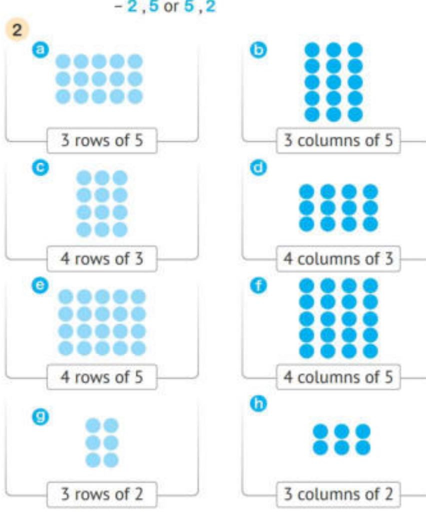
- 5 - 5 + 5 = 10

Number of columns is 5

- 2 - 2 + 2 + 2 + 2 + 2 = 10

- 2 , 5 or 5 , 2

2



3 ⓐ 6 + 6 + 6 = 18 ⓑ 7 + 7 + 7 = 21

ⓒ 4 + 4 + 4 + 4 + 4 = 20

ⓓ 3 + 3 + 3 + 3 + 3 = 15

ⓔ 9 + 9 = 18

ⓕ 3 + 3 + 3 + 3 + 3 + 3 + 3 + 3 = 24

ⓖ 7 + 7 = 14

4 ⓐ 3 + 3 + 3 + 3 + 3 = 15

ⓑ 4 + 4 + 4 + 4 = 16

ⓒ 4 + 4 + 4 + 4 + 4 = 20

ⓓ 4 + 4 + 4 + 4 = 16

Accumulative Assessment 6

Up to Lesson (5)

1 ⓐ 90,099 ⓑ 99,999 ⓒ 707

ⓓ 50 ⓔ 75,000

2 ⓐ Thousands ⓑ 23,659 ⓒ 500, 600

ⓓ 87,520 ⓔ 26,000

3 ⓐ Number of rows: 4

- 3 - 3 + 3 + 3 + 3 = 12 - 4 , 3

ⓓ 75,002 , 75,020 , 75,200 , 75,202 , 75,220

Lesson 6

Multiplication

1 ⓐ Repeated addition: 6 + 6 + 6 = 18

Multiplication: 3 × 6 = 18

ⓑ Repeated addition: 5 + 5 + 5 + 5 = 20

Multiplication: 4 × 5 = 20

ⓒ Repeated addition: 4 + 4 + 4 + 4 + 4 + 4 = 24

Multiplication: 6 × 4 = 24

ⓓ Repeated addition: 2 + 2 + 2 + 2 = 8

Multiplication: 4 × 2 = 8

ⓔ Repeated addition: 7 + 7 + 7 = 21

Multiplication: 3 × 7 = 21

ⓕ Repeated addition: 4 + 4 = 8

Multiplication: 2 × 4 = 8

ⓖ Repeated addition :

3 + 3 + 3 + 3 + 3 + 3 + 3 + 3 + 3 = 27

Multiplication: 9 × 3 = 27

ⓗ Repeated addition: 9 + 9 + 9 + 9 + 9 + 9 + 9 = 63

Multiplication: 7 × 9 = 63

2 ⓐ 5 + 5 + 5 + 5 = 20

So, 4 X 5 = 20 and 5 X 4 = 20

ⓑ 4 + 4 + 4 + 4 + 4 = 20

So, 5 X 4 = 20 and 4 X 5 = 20

ⓒ 6 + 6 = 12

So, 2 X 6 = 12 and 6 X 2 = 12

ⓓ 2 + 2 + 2 + 2 + 2 + 2 = 12

So, 6 X 2 = 12 and 2 X 6 = 12

ⓔ 3 + 3 + 3 + 3 + 3 = 15

So, 5 X 3 = 15 and 3 X 5 = 15

ⓕ 9 + 9 + 9 + 9 = 36

So, 4 X 9 = 36 and 9 X 4 = 36

ⓖ 1 + 1 + 1 + 1 + 1 = 5

So, 5 X 1 = 5 and 1 X 5 = 5

ⓗ 7 + 7 = 14

So, 2 X 7 = 14 and 7 X 2 = 14

ⓘ 8 + 8 + 8 = 24

So, 3 X 8 = 24 and 8 X 3 = 24

ⓙ 6 + 6 + 6 + 6 + 6 = 30

So, 5 X 6 = 30 and 6 X 5 = 30

ⓚ 5 X 4 = 4 + 4 + 4 + 4 + 4

ⓛ 6 X 2 = 2 + 2 + 2 + 2 + 2 + 2

ⓜ 8 X 3 = 8 + 8 + 8

ⓝ 6 X 5 = 6 + 6 + 6 + 6 + 6

ⓞ 6 X 5 = 5 + 5 + 5 + 5 + 5 + 5

ⓟ 4 X 7 = 4 + 4 + 4 + 4 + 4 + 4 + 4

ⓠ 4 X 7 = 7 + 7 + 7 + 7

ⓡ 5 X 5 = 5 + 5 + 5 + 5 + 5

3 ⓐ 2 X 4 = 8 ⓑ 4 X 2 = 8 ⓒ 3 X 6 = 18

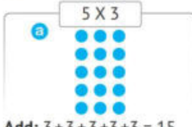
ⓓ 3 X 4 = 12 ⓔ 4 X 3 = 12 ⓕ 4 X 6 = 24

ⓖ 5 X 3 = 15 ⓗ 5 X 4 = 20 ⓘ 6 X 2 = 12

ⓙ 6 X 4 = 24 ⓚ 7 X 2 = 14 ⓛ 8 X 1 = 8

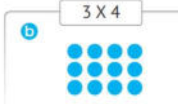
4

ⓐ 5 X 3



Add: 3+3+3+3+3 = 15

ⓑ 3 X 4

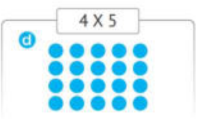


Add: 4+4+4= 12

ⓒ 2 X 3

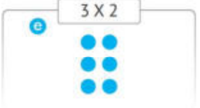
Add: 3 + 3 = 6

ⓓ 4 X 5



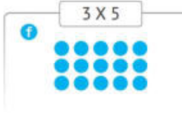
Add: 5+5+5+5 = 20

ⓔ 3 X 2



Add: 2 + 2 + 2= 6

ⓕ 3 X 5



Add: 5+5+5 = 15

Accumulative Assessment 7

Up to Lesson (6)

1 ⓐ 4,000 ⓑ 6 X 4 ⓒ 505

ⓓ 4 + 4 + 4 ⓔ 300,999

2 ⓐ 150 + 12,000 = 12,150 ⓑ 7 + 7 + 7

ⓒ 7 X 4 = 28 ⓓ 10,234 ⓔ 12, 14, 16, 18

3 ⓐ 45,521, 45,512, 45,125, 45,021, 45,012

ⓑ ① < ② < ③ < ④ =

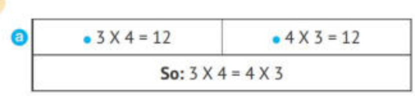
ⓒ ① 5 + 5 + 5 = 15 ② 3 X 5 = 15

Lesson 7

Commutative Property in Multiplication

1

ⓐ



• 3 X 4 = 12	• 4 X 3 = 12
So: 3 X 4 = 4 X 3	

ⓑ

• 5 X 3 = 15	• 3 X 5 = 15
So: 5 X 3 = 3 X 5	

ⓒ

• 3 X 2 = 6	• 2 X 3 = 6
So: 3 X 2 = 2 X 3	

ⓓ

• 5 X 4 = 20	• 4 X 5 = 20
So: 5 X 4 = 4 X 5	

ⓔ

• 6 X 3 = 18	• 3 X 6 = 18
So: 6 X 3 = 3 X 6	

ⓕ

• 6 X 1 = 6	• 1 X 6 = 6
So: 6 X 1 = 1 X 6	

ⓖ

• 6 X 2 = 12	• 2 X 6 = 12
So: 6 X 2 = 2 X 6	

ⓗ

• 5 X 1 = 5	• 1 X 5 = 5
So: 5 X 1 = 1 X 5	

ⓘ

• 4 X 2 = 8	• 2 X 4 = 8
So: 4 X 2 = 2 X 4	

ⓙ

• 5 X 6 = 30	• 6 X 5 = 30
So: 5 X 6 = 6 X 5	

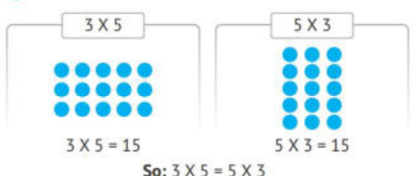
ⓚ

• 5 X 2 = 10	• 2 X 5 = 10
So: 5 X 2 = 2 X 5	

ⓛ

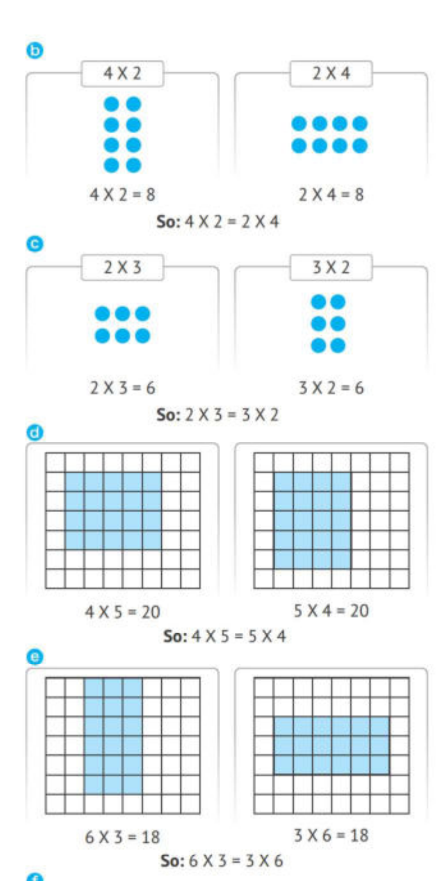
• 4 X 6 = 24	• 6 X 4 = 24
So: 4 X 6 = 6 X 4	

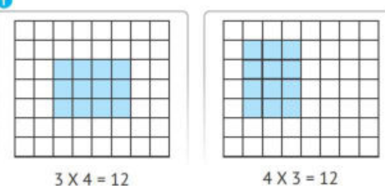
2 ⓐ



So: 3 X 5 = 5 X 3

b







3
- a 8 b 6 c 6 d 2
- e 6 f 5 g 2 h 4
- i **If,** 2 + 2 + 2 + 2 + 2 + 2 + 2 = 14, then 7 X 2 = 14
  And if, 7 + 7 = 14, then 7 X 2 = 14
  So, 7 X 2 = 2 X 7
- j **If,** 4 + 4 + 4 + 4 + 4 + 4 = 24, then 6 X 4 = 24
  And if, 6 + 6 + 6 + 6 = 24, then 4 X 6= 24
  So, 6 X 4 = 4 X 6
- k **If,** 3 + 3 + 3 + 3 + 3 = 15, then 5 X 3 = 15
  And if, 5 + 5 + 5 = 15, then 3 X 5 = 15
  So, 5 X 3 = 3 X 5

Accumulative Assessment 8

Up to Lesson (7)

1
- a 19,909 b 6,060 c 7 X 5
- d 4 + 4 + 4 + 4 e 8,000

2
- a ■ ▲ , ■ ▲ b 5
- c 6 d 57,000
- e 700,000 + 200 + 1,080 = 701,280

3
- a 70,050 , 75,005 , 75,055 , 75,500 , 75,505
- d Number of columns = 6
  Number of squares in each column = 3
  Total number of squares = 6 X 3 = 18
- c Number of rows = 2
  Number of squares in each row = 6
  Total number of squares = 2 X 6 = 12

Exercises on Chapter 3

Lessons 1&2

Word Problems and Applications on Multiplication

1
- a 6 X 9 = 54 apples b 2 X 5 = 10 oranges
- c 9 X 7 = 63 erasers d 7 X 5 = 35 LE
- e 8 X 6 = 48 eggs f 7 X 7 = 49 bananas
- g 8 X 8 = 64 crayons h 5 X 6 = 30
- i 7 X 4 = 28 legs j 6 X 9 = 54 LE

2
- a 5 x 6
  Nada bought 5 books for LE 6 each
  What is the price of all books?
  5 X 6 = 30 LE

ⓑ **4 X 3**

Ali bought 4 pens for LE 3 each
What is the price of all pens?
4 X 3 = **12** LE

ⓒ **5 X 4**

Sara bought 5 bags for LE 4 each
What is the price of all bags?
5 X 4 = **20** LE

ⓓ **3 X 6**

Samir bought 3 balls for LE 6 each
What is the price of all balls?
3 X 6 = **18** LE

Accumulative Assessment 9

Up to Lesson (2)

1 ⓐ 7 X 8 ⓑ = ⓒ 10,000
ⓓ 66,000 ⓔ 62,999

2 ⓐ 4 X 9 ⓑ 370,000
ⓒ Hundreds ⓓ 75,512
ⓔ 30, 24, 18, 12

3 ⓐ 45,045 , 45,054 , 45,405 , 45,450 , 45,504
ⓑ 6 X 5 = 30 eggs

Lessons 3&4

Multiples

Multiples of 2 and 3

1, **2**, **3** Answer by yourself

4

2 × 0	2 × 3	2 × 6	2 × 9
3 × 2	3 × 6	3 × 0	3 × 4

5 ⓐ 5 + 5 = **2** X **5** = **10** ⓑ 4 + 4 + 4 = **3** X **4** = **12**
ⓒ 6 + 6 = **2** X **6** = **12** ⓓ 7 + 7 + 7 = **3** X **7** = **21**
ⓔ 8 + 8 = **2** X **8** = **16** ⓕ 9 + 9 + 9 = **3** X **9** = **27**
ⓖ 3 + 3 = **2** X **3** = **6** ⓗ 2 + 2 + 2 = **3** X **2** = **6**

6 ⓐ 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, 28, 30, 32, 34, 36, 38, 40
ⓑ 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36, 39, 42, 45, 48, 51, 54, 57, 60
ⓒ 6, 12, 18, 24, 30, 36, 42, 48

7 ⓐ 2 X 6 ⓑ 3 X 4 ⓒ 5 X 4 ⓓ 12 + 12
ⓔ 8 + 8 ⓕ 2 X 5 ⓖ 4 + 4 ⓗ 6 X 3

Multiples of 4 and 5

1, **2**, **3** Answer by yourself

4

4+4+4+4	8 + 8 + 8	6 + 6 + 6	10+10+10
9 + 9	2 × 8	5 × 6	4 × 6

5 ⓐ 4 + 4 + 4 + 4 + 4 = **5** X **4** = **20**
ⓑ 5 + 5 + 5 + 5 + 5 + 5 + 5 + 5 = **8** X **5** = **40**
ⓒ 5 X 6 = **10** + **10** + **10** = **30**
ⓓ 3 X 4 = **6** + **6** = **12**
ⓔ 8 + 8 + 8 + 8 + 8 = 4 X **10** = **40**
ⓕ 4 + 4 + 4 + 4 = 2 X **8** = **16**
ⓖ 5 X 4 = 2 X **10** = **20** ⓗ 4 X 6 = 3 X **8** = **24**

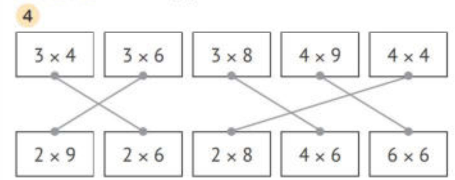
6 ⓐ 4, 8, 12, 16, 20, 24, 28, 32, 36, 40, 44, 48, 52, 56, 60, 64, 68, 72, 76, 80
ⓑ 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, 65, 70, 75, 80, 85, 90, 95, 100
ⓒ 20, 40 ⓓ 12, 24, 36

7 ⓐ 5 X 4 ⓑ 8 X 3 ⓒ 6 X 4 ⓓ 8 + 8
ⓔ 9 X 2 ⓕ 6 X 2 ⓖ 8 X 2 ⓗ > ⓘ <
ⓙ = ⓚ < ⓛ 10 ⓜ 10 ⓝ 8

Multiples of 6 and 7

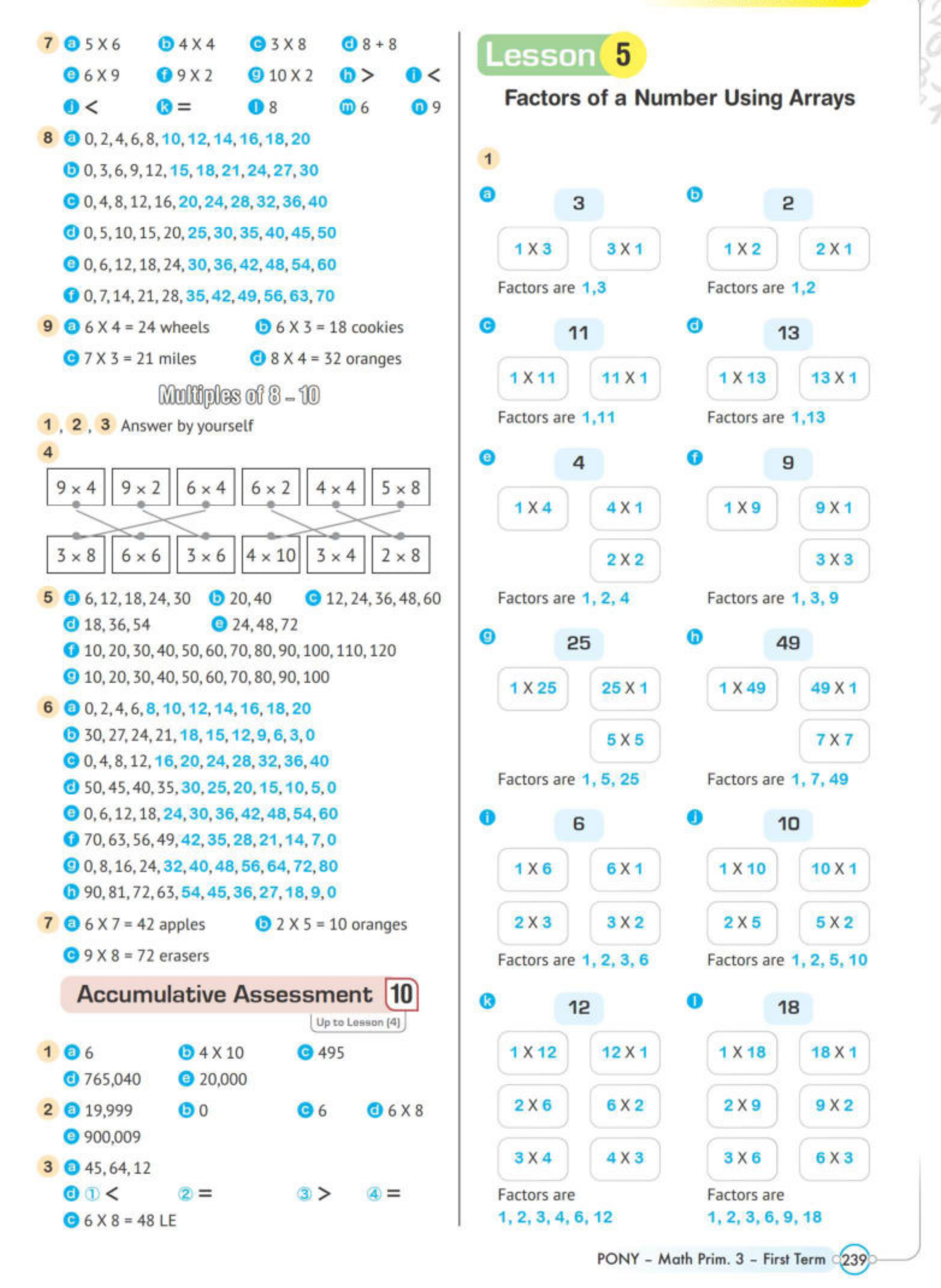
1, **2**, **3** Answer by yourself

4



5 ⓐ 4 + 4 + 4 + 4 + 4 + 4 + 4 + 4 = **8** X **4** = **32**
ⓑ 5 + 5 + 5 + 5 + 5 + 5 + 5 = **7** X **5** = **35**
ⓒ 5 X 8 = **8** + **8** + **8** + **8** + **8** = **40**
ⓓ 4 X 4 = **8** + **8** = **16**
ⓔ 7 + 7 + 7 + 7 + 7 = 5 X **7** = **35**
ⓕ 4 + 4 + 4 + 4 = 2 X **8** = **16**
ⓖ 5 X 8 = 4 X **10** = **40** ⓗ 6 X 6 = 4 X **9** = **36**

6 ⓐ 6, 12, 18, 24, 30, 36, 42, 48, 54, 60, 66, 72, 78, 84, 90, 96, 102, 108, 114, 120
ⓑ 7, 14, 21, 28, 35, 42, 49, 56, 63, 70, 77, 84, 91, 98, 105, 112, 119, 126, 133, 140
ⓒ 42, 84 ⓓ 12, 24, 36, 48, 60



7 (a) 5 X 6 (b) 4 X 4 (c) 3 X 8 (d) 8 + 8
(e) 6 X 9 (f) 9 X 2 (g) 10 X 2 (h) > (i) <
(j) < (k) = (l) 8 (m) 6 (n) 9

8 (a) 0, 2, 4, 6, 8, **10, 12, 14, 16, 18, 20**
(b) 0, 3, 6, 9, 12, **15, 18, 21, 24, 27, 30**
(c) 0, 4, 8, 12, 16, **20, 24, 28, 32, 36, 40**
(d) 0, 5, 10, 15, 20, **25, 30, 35, 40, 45, 50**
(e) 0, 6, 12, 18, 24, **30, 36, 42, 48, 54, 60**
(f) 0, 7, 14, 21, 28, **35, 42, 49, 56, 63, 70**

9 (a) 6 X 4 = 24 wheels (b) 6 X 3 = 18 cookies
(c) 7 X 3 = 21 miles (d) 8 X 4 = 32 oranges

Multiples of 8 – 10

1, **2**, **3** Answer by yourself

4

9 × 4	9 × 2	6 × 4	6 × 2	4 × 4	5 × 8
3 × 8	6 × 6	3 × 6	4 × 10	3 × 4	2 × 8

5 (a) 6, 12, 18, 24, 30 (b) 20, 40 (c) 12, 24, 36, 48, 60
(d) 18, 36, 54 (e) 24, 48, 72
(f) 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, 120
(g) 10, 20, 30, 40, 50, 60, 70, 80, 90, 100

6 (a) 0, 2, 4, 6, **8, 10, 12, 14, 16, 18, 20**
(b) 30, 27, 24, 21, **18, 15, 12, 9, 6, 3, 0**
(c) 0, 4, 8, 12, **16, 20, 24, 28, 32, 36, 40**
(d) 50, 45, 40, 35, **30, 25, 20, 15, 10, 5, 0**
(e) 0, 6, 12, 18, **24, 30, 36, 42, 48, 54, 60**
(f) 70, 63, 56, 49, **42, 35, 28, 21, 14, 7, 0**
(g) 0, 8, 16, 24, **32, 40, 48, 56, 64, 72, 80**
(h) 90, 81, 72, 63, **54, 45, 36, 27, 18, 9, 0**

7 (a) 6 X 7 = 42 apples (b) 2 X 5 = 10 oranges
(c) 9 X 8 = 72 erasers

Accumulative Assessment 10

Up to Lesson (4)

1 (a) 6 (b) 4 X 10 (c) 495
(d) 765,040 (e) 20,000

2 (a) 19,999 (b) 0 (c) 6 (d) 6 X 8
(e) 900,009

3 (a) 45, 64, 12
(b) ① < ② = ③ > ④ =
(c) 6 X 8 = 48 LE

Lesson 5

Factors of a Number Using Arrays

1

(a) **3**
1 X 3 | 3 X 1
Factors are **1,3**

(b) **2**
1 X 2 | 2 X 1
Factors are **1,2**

(c) **11**
1 X 11 | 11 X 1
Factors are **1,11**

(d) **13**
1 X 13 | 13 X 1
Factors are **1,13**

(e) **4**
1 X 4 | 4 X 1
2 X 2
Factors are **1, 2, 4**

(f) **9**
1 X 9 | 9 X 1
3 X 3
Factors are **1, 3, 9**

(g) **25**
1 X 25 | 25 X 1
5 X 5
Factors are **1, 5, 25**

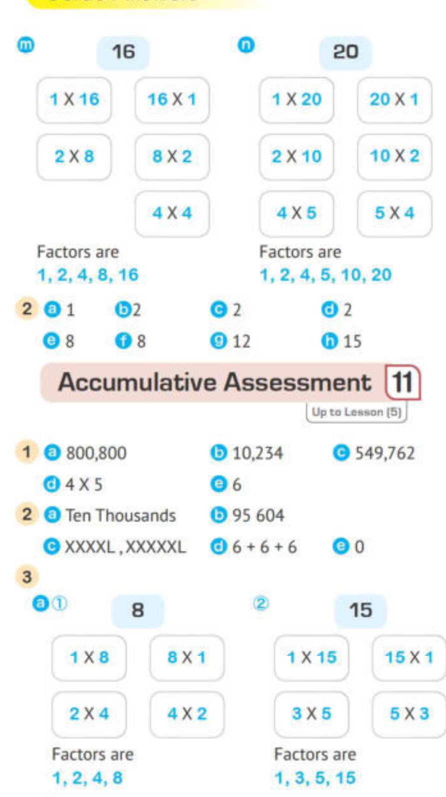
(h) **49**
1 X 49 | 49 X 1
7 X 7
Factors are **1, 7, 49**

(i) **6**
1 X 6 | 6 X 1
2 X 3 | 3 X 2
Factors are **1, 2, 3, 6**

(j) **10**
1 X 10 | 10 X 1
2 X 5 | 5 X 2
Factors are **1, 2, 5, 10**

(k) **12**
1 X 12 | 12 X 1
2 X 6 | 6 X 2
3 X 4 | 4 X 3
Factors are
1, 2, 3, 4, 6, 12

(l) **18**
1 X 18 | 18 X 1
2 X 9 | 9 X 2
3 X 6 | 6 X 3
Factors are
1, 2, 3, 6, 9, 18



Accumulative Assessment 11

Up to Lesson [5]

1 a 800,800 b 10,234 c 549,762
d 4 X 5 e 6

2 a Ten Thousands b 95 604
c XXXXL , XXXXXL d 6 + 6 + 6 e 0

3
a ①

8	
1 X 8	8 X 1
2 X 4	4 X 2

Factors are
1, 2, 4, 8

②

15	
1 X 15	15 X 1
3 X 5	5 X 3

Factors are
1, 3, 5, 15

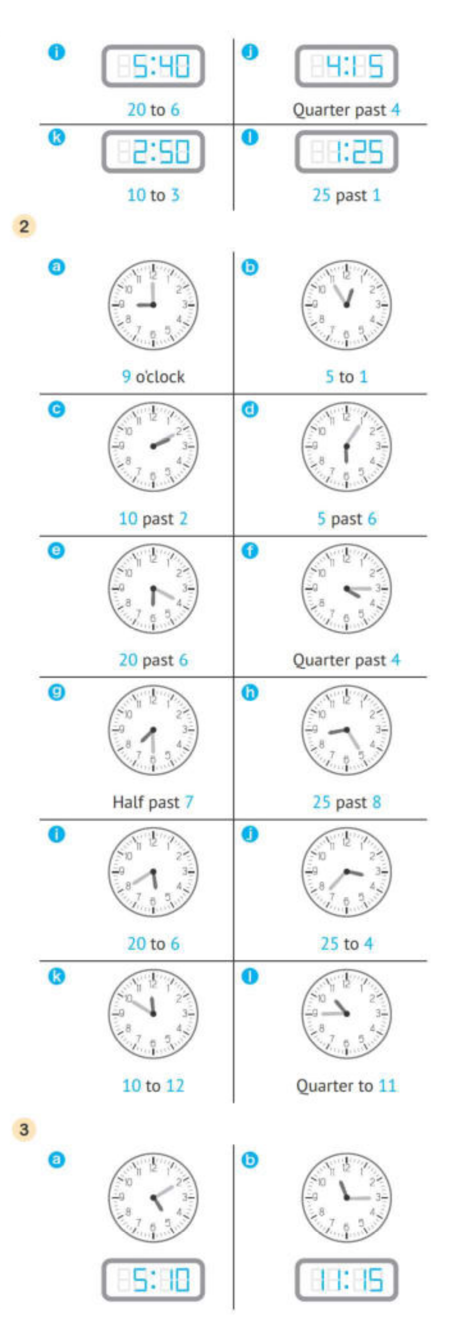
d 4 X 6 = 24 apples

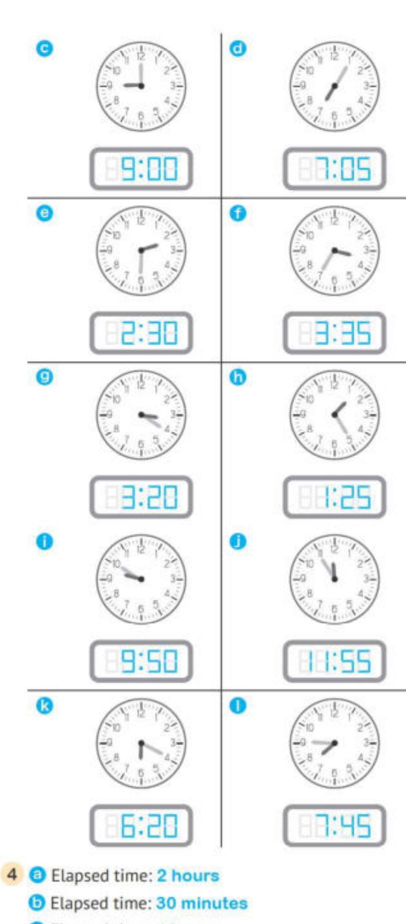
Lessons 6&7

Time – Applications on Time

1







4 a Elapsed time: **2 hours**
b Elapsed time: **30 minutes**
c Elapsed time: **4 hours**
d Elapsed time: **40 minutes**
e Elapsed time: **9 hours**
f Elapsed time: **4 hours**
g Elapsed time: **18 minutes**
h Elapsed time: **37 minutes**
i Elapsed time: **30 minutes**
j Elapsed time: **15 minutes**

5 **20 minutes**

6 

7 **30 minutes**

8 

9 

Accumulative Assessment 12

Up to Lesson (7)

1 a 4 X 6 b 720,000 c 4
d 30,000 e 99,999

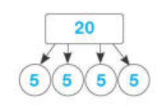
2 a 60,100 b 5 c 60 d 8
e Sixty thousand, twenty

3 a 1,024 , 2,458 , 4,325 , 6,854 , 8,214
b 9 X 7 = 63 LE c 

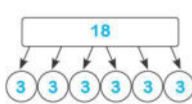
Lessons 8&9

Division – Applications on Division

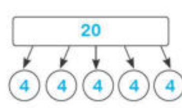
1 20 ÷ 4 = 5



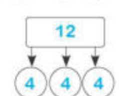
2 18 ÷ 6 = 3



3 20 ÷ 5 = 4



4 12 ÷ 3 = 4



5 27 ÷ 3 = 9

27
9 9 9

6 30 ÷ 6 = 5

30
5 5 5 5 5 5

7 24 ÷ 6 = 4

24 → 4 4 4 4 4 4

8 25 ÷ 5 = 5

25 → 5 5 5 5 5

9 100 ÷ 2 = 50

100 → 50 50

10 ⓐ 2 ⓑ 6 ⓒ 9 ⓓ 7 ⓔ 9 ⓕ 5
ⓖ 8 ⓗ 8 ⓘ 8 ⓙ 2 ⓚ 6 ⓛ 4
ⓜ 6 ⓝ 4 ⓞ 9 ⓟ 5

Accumulative Assessment 13

Up to Lesson (9)

1 ⓐ 25,100 ⓑ 3 X 10 ⓒ 85,000
ⓓ 5 ⓔ 15

2 ⓐ 75,902 ⓑ 5 X 10 = 50 ⓒ Hundreds
ⓓ 98,765 ⓔ oooo xxxx

3 ⓐ ① < ② > ③ < ④ =
ⓑ 24 ÷ 4 = 6

24 → 6 6 6 6

Lesson 10

The Relation Between Multiplication and Division

1

ⓐ



12 / 3, 4

3 × 4 = 12
4 × 3 = 12
12 ÷ 3 = 4
12 ÷ 4 = 3

ⓑ

14 / 2, 7

2 × 7 = 14
7 × 2 = 14
14 ÷ 2 = 7
14 ÷ 7 = 2

ⓒ

24 / 8, 3

8 × 3 = 24
3 × 8 = 24
24 ÷ 3 = 8
24 ÷ 8 = 3

ⓓ

36 / 6, 6

6 × 6 = 36
36 ÷ 6 = 6

ⓔ

81 / 9, 9

9 × 9 = 81
81 ÷ 9 = 9

ⓕ

21 / 7, 3

7 × 3 = 21
3 × 7 = 21
21 ÷ 3 = 7
21 ÷ 7 = 3

ⓖ

42 / 6, 7

6 × 7 = 42
7 × 6 = 42
42 ÷ 6 = 7
42 ÷ 7 = 6

ⓗ

48 / 8, 6

8 × 6 = 48
6 × 8 = 48
48 ÷ 6 = 8
48 ÷ 8 = 6

ⓘ

30 / 5, 6

5 × 6 = 30
6 × 5 = 30
30 ÷ 5 = 6
30 ÷ 6 = 5

ⓙ

27 / 3, 9

9 × 3 = 27
3 × 9 = 27
27 ÷ 3 = 9
27 ÷ 9 = 3

ⓚ

36 / 4, 9

4 × 9 = 36
9 × 4 = 36
36 ÷ 9 = 4
36 ÷ 4 = 9

ⓛ

16 / 2, 8

2 × 8 = 16
8 × 2 = 16
16 ÷ 2 = 8
16 ÷ 8 = 2

2 ⓐ 5 ⓑ 3 ⓒ 6 ⓓ 6 ⓔ 9 ⓕ 9
ⓖ 2 ⓗ 4 ⓘ 4 ⓙ 3

3 ⓐ 4 ⓑ 2 ⓒ 2 ⓓ 3 ⓔ 4 ⓕ 4
ⓖ 8 ⓗ 7 ⓘ 9 ⓙ 5 ⓚ 1 ⓛ 9

4 ⓐ 8 ⓑ 7 ⓒ 9 ⓓ 6 ⓔ 9 ⓕ 8
ⓖ 9 ⓗ 9 ⓘ 6

5 ⓐ 4 ⓑ 9 ⓒ 8 ⓓ 12 ⓔ 16 ⓕ 4
ⓖ 7 ⓗ 8 ⓘ 6

6 ⓐ 3 X 5 = 15 15 ÷ 5 = 3
ⓑ 3 X 4 = 12 12 ÷ 4 = 3
ⓒ 2 X 6 = 12 12 ÷ 6 = 2
ⓓ 4 X 6 = 24 24 ÷ 6 = 4

Accumulative Assessment 14

Up to Lesson (10)

1 ⓐ 20,499 ⓑ 4 ⓒ 3 ⓓ 6 X 4 ⓔ 18,808

2 ⓐ 25,000 + 1,050 = 26,050
ⓑ 56 ÷ 8 = 7 ⓒ 4 X 5 = 5 + 5 + 5 + 5
ⓓ 100,000 ⓔ 4

3 ⓐ ① 14 ② 9 ③ 20 ④ 7
ⓑ ① > ② > ③ = ④ <
ⓒ 40 ÷ 8 = 5 LE

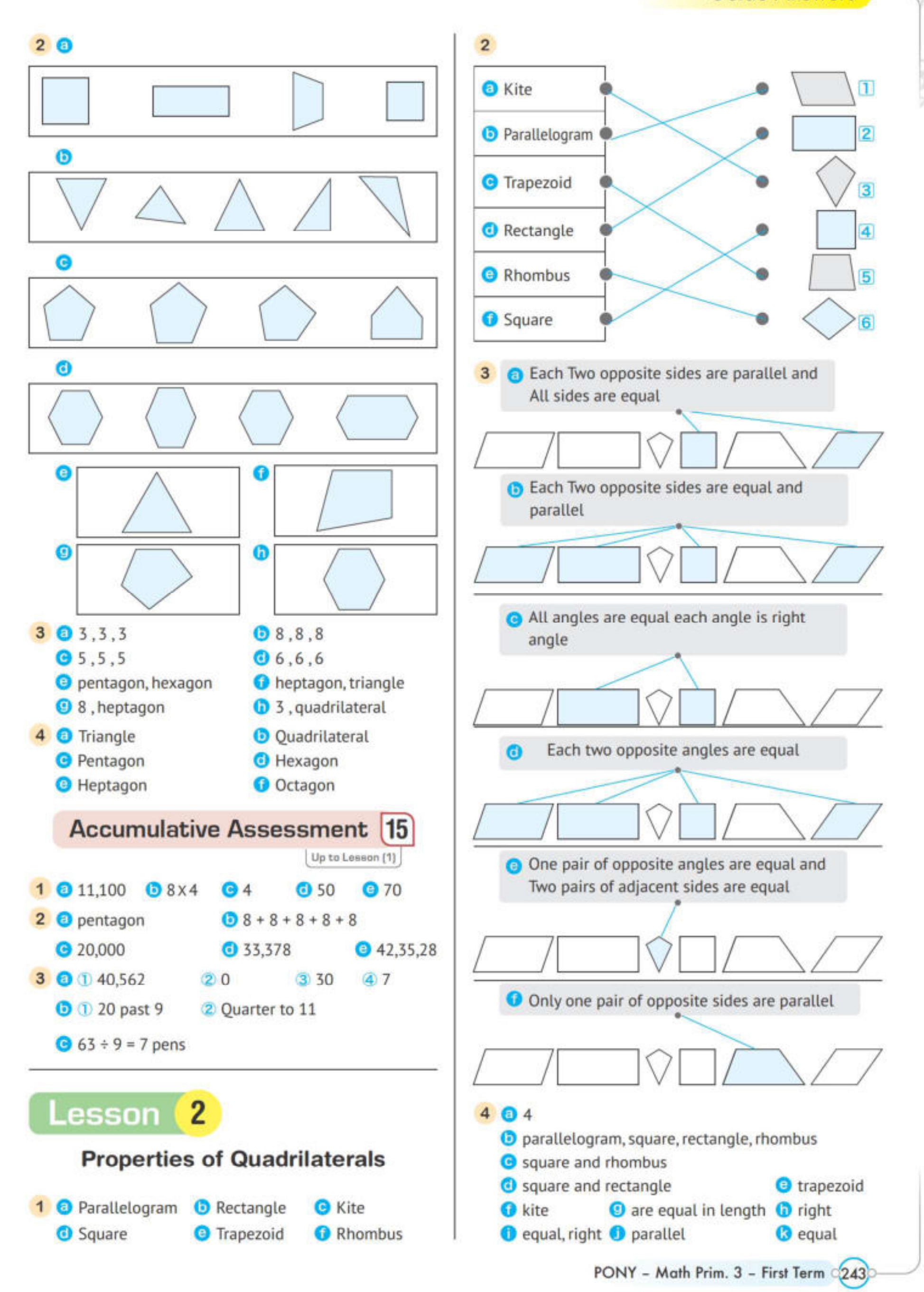


Exercises on Chapter 4

Lesson 1

Polygons

1



2 ⓐ ⓑ ⓒ ⓓ ⓔ ⓕ ⓖ ⓗ

3 ⓐ 3 , 3 , 3 ⓑ 8 , 8 , 8
ⓒ 5 , 5 , 5 ⓓ 6 , 6 , 6
ⓔ pentagon, hexagon ⓕ heptagon, triangle
ⓖ 8 , heptagon ⓗ 3 , quadrilateral

4 ⓐ Triangle ⓑ Quadrilateral
ⓒ Pentagon ⓓ Hexagon
ⓔ Heptagon ⓕ Octagon

Accumulative Assessment 15

Up to Lesson (1)

1 ⓐ 11,100 ⓑ 8 x 4 ⓒ 4 ⓓ 50 ⓔ 70

2 ⓐ pentagon ⓑ 8 + 8 + 8 + 8 + 8
ⓒ 20,000 ⓓ 33,378 ⓔ 42,35,28

3 ⓐ ① 40,562 ② 0 ③ 30 ④ 7
ⓑ ① 20 past 9 ② Quarter to 11
ⓒ 63 ÷ 9 = 7 pens

Lesson 2

Properties of Quadrilaterals

1 ⓐ Parallelogram ⓑ Rectangle ⓒ Kite
ⓓ Square ⓔ Trapezoid ⓕ Rhombus

2
ⓐ Kite
ⓑ Parallelogram
ⓒ Trapezoid
ⓓ Rectangle
ⓔ Rhombus
ⓕ Square

1 2 3 4 5 6

3 ⓐ Each Two opposite sides are parallel and All sides are equal

ⓑ Each Two opposite sides are equal and parallel

ⓒ All angles are equal each angle is right angle

ⓓ Each two opposite angles are equal

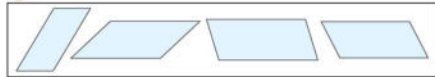
ⓔ One pair of opposite angles are equal and Two pairs of adjacent sides are equal

ⓕ Only one pair of opposite sides are parallel

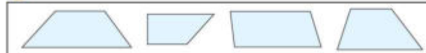
4 ⓐ 4
ⓑ parallelogram, square, rectangle, rhombus
ⓒ square and rhombus
ⓓ square and rectangle ⓔ trapezoid
ⓕ kite ⓖ are equal in length ⓗ right
ⓘ equal, right ⓙ parallel ⓚ equal



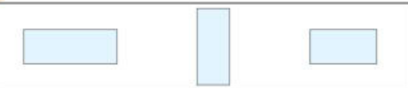
5



6

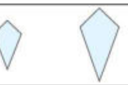


7



8





Accumulative Assessment 16

Up to Lesson [2]

1 ⓐ square ⓑ 4 ⓒ 9 X 5
ⓓ 10 ⓔ 50,000

2 ⓐ 46,005 ⓑ hexagon ⓒ square, rectangle
ⓓ 60 ⓔ 200

3 ⓐ ① 21 ② 8 ③ 40 ④ 50,505
ⓑ ① Parallelogram ② Kite
③ Rectangle ④ Trapezoid
ⓒ 7 X 8 = 56 days

Lesson 3

Area

1 ⓐ 4 rows 7 columns
Area = 4 X 7 = 28 square units

ⓑ 3 rows 7 columns
Area = 3 X 7 = 21 square units

ⓒ 4 rows 6 columns
Area = 4 X 6 = 24 square units

ⓓ 4 rows 4 columns
Area = 4 X 4 = 16 square units

ⓔ 5 rows 9 columns
Area = 5 X 9 = 45 square units

ⓕ 2 rows 8 columns
Area = 2 X 8 = 16 square units

ⓖ Length = 6 units Width = 4 units
Area = 6 X 4 = 24 square units

ⓗ Length = 5 units Width = 2 units
Area = 5 X 2 = 10 square units

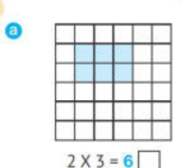
ⓘ Length = 5 units Width = 5 units
Area = 5 X 5 = 25 square units

ⓙ Length = 8 units Width = 4 units
Area = 8 X 4 = 32 square units

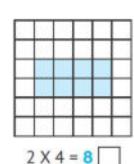
ⓚ Length = 5 units Width = 3 units
Area = 5 X 3 = 15 square units

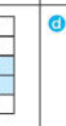
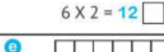
ⓛ Length = 8 units Width = 3 units
Area = 8 X 3 = 24 square units

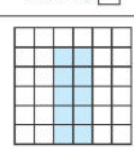
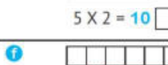
2

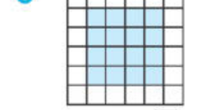
ⓐ


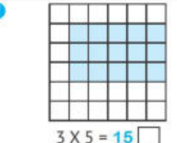
2 X 3 = 6 ☐

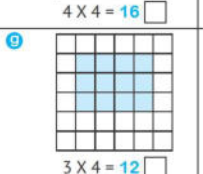
ⓑ

2 X 4 = 8 ☐

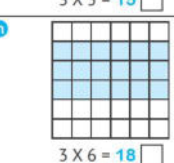
ⓒ


6 X 2 = 12 ☐

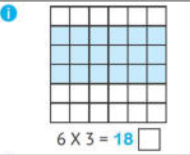
ⓓ


5 X 2 = 10 ☐

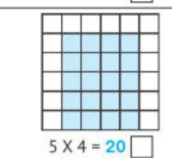
ⓔ

4 X 4 = 16 ☐

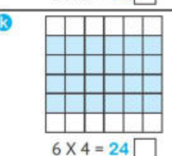
ⓕ

3 X 5 = 15 ☐

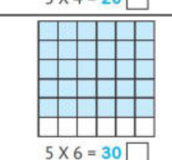
ⓖ

3 X 4 = 12 ☐

ⓗ

3 X 6 = 18 ☐

ⓘ

6 X 3 = 18 ☐

ⓙ

5 X 4 = 20 ☐

ⓚ

6 X 4 = 24 ☐

ⓛ

5 X 6 = 30 ☐

3 Area of shape (A) 3 X 4 = 12 ☐

Area of shape (B) 2 X 6 = 12 ☐

Area of shape (C) 6 X 3 = 18 ☐

Area of shape (D) 5 X 7 = 35 ☐

Area of shape (E) 1 X 5 = 5 ☐

	A		B		C		D		E		
The total area	12	+	12	+	18	+	35	+	5	=	82

Accumulative Assessment 17



1 (a) 9,090 (b) 4 (c) 60
(d) 10 + 10 (e) 999,999

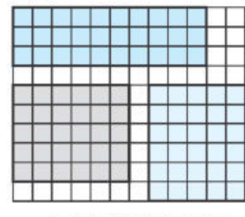
2 (a) 45,550 (b) 5 (c) 2
(d) equal (e) 63, 72, 81

3 (a) • > • > • > • >
(b) ⓐ 16 ⓑ 20 ⓒ 24

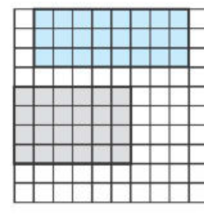
Lessons 4&5

Rectangles with Equal Area – Area Using Models

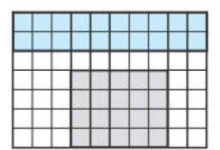
1 (a) 30 square units
30 = 3 X 10
30 = 5 X 6
30 = 6 X 5



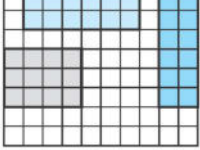
(b) 24 square units
24 = 3 X 8
24 = 4 X 6



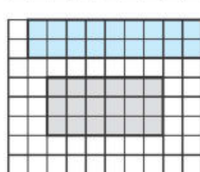
(c) 20 square units
20 = 2 X 10
20 = 4 X 5



(d) 12 square units
12 = 2 X 6
12 = 3 X 4
12 = 6 X 2



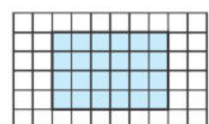
(e) 18 square units
18 = 2 X 9
18 = 3 X 6



2

(a) 4 X 3 = 12 square units	(b) 2 X 6 = 12 square units
(c) 4 X 8 = 32 square units	(d) 3 X 5 = 15 square units
(e) 5 X 5 = 25 square units	(f) 2 X 8 = 16 square units
(g) 5 X 10 = 50 square units	(h) 5 X 7 = 35 square units
(i) 7 X 8 = 56 square units	(j) 7 X 5 = 35 square units
(k) 4 X 9 = 36 square units	(l) 6 X 9 = 54 square units

3 4 X 6 = 24



Accumulative Assessment 18

Up to Lesson (5)

1 (a) 4 X 6 (b) 58,158 (c) 6
(d) 1 (e) 4,000

2 (a) Ones (b) 63,068 (c) 6
(d) 7 + 7 + 7 (e) 1, 2, 4 and 8

3 (a) 25,420 , 25,402 , 25,240 , 25,204 , 25,024
(b) • 6 • 8 • 64 • 9
(c) Area = 4 X 7 = 28 square units

Lessons 6&7

Area by Splitting Arrays – Distributive Property on Multiplication

1

4 Rows

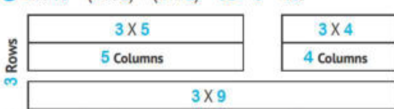
4 X 8	4 X 2
8 Columns	2 Columns

4 X 10

Guide Answers



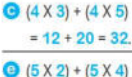
ⓐ 4 X 10 = (4 X 8) + (4 X 2) = 32 + 8 = 40.



3 X 5	3 X 4
5 Columns	4 Columns
3 X 9	

3 Rows

ⓑ 3 X 9 = (3 X 5) + (3 X 4) = 15 + 12 = 27.



ⓒ (4 X 3) + (4 X 5) = 12 + 20 = 32.

ⓓ (2 X 4) + (2 X 3) = 8 + 6 = 14.

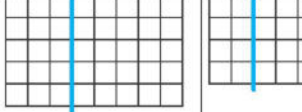
ⓔ (5 X 2) + (5 X 4) = 10 + 20 = 30.

ⓕ (3 X 3) + (3 X 2) = 9 + 6 = 15.

ⓖ (4 X 3) + (4 X 4) = 12 + 16 = 28.

ⓗ (2 X 4) + (2 X 2) = 8 + 4 = 12.

2

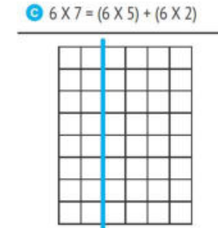


ⓐ 5 X 8 = (5 X 3) + (5 X 5)

ⓑ 4 X 9 = (4 X 2) + (4 X 7)

ⓒ 6 X 7 = (6 X 5) + (6 X 2)

ⓓ 4 X 7 = (4 X 3) + (4 X 4)



ⓔ 8 X 6 = (8 X 2) + (8 X 4)

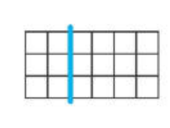
ⓕ 2 X 8 = (2 X 5) + (2 X 3)

3 (There is more than one answer.)

ⓐ

(6 X 3) + (6 X 5)
= 18 + 30 = 48

ⓑ

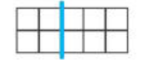


(3 X 2) + (3 X 4)
= 6 + 12 = 18

ⓒ

(5 X 5) + (5 X 2)
= 25 + 10 = 35

ⓓ



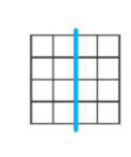
(2 X 2) + (2 X 3)
= 4 + 6 = 12

ⓔ



(6 X 2) + (6 X 4)
= 12 + 24 = 36

ⓕ



(4 X 2) + (4 X 2)
= 8 + 8 = 16

4
ⓐ 4 X 8 = (4 X 5) + (4 X 3) = 20 + 12 = 32
ⓑ 5 X 9 = (5 X 5) + (5 X 4) = 25 + 20 = 45
ⓒ 6 X 6 = (6 X 4) + (6 X 2) = 24 + 12 = 36
ⓓ 3 X 8 = (3 X 5) + (3 X 3) = 15 + 9 = 24
ⓔ 7 X 6 = (7 X 2) + (7 X 4) = 14 + 28 = 42
ⓕ 8 X 7 = (8 X 3) + (8 X 4) = 24 + 32 = 56
ⓖ 6 X 9 = (6 X 4) + (6 X 5) = 24 + 30 = 54
ⓗ 3 X 7 = (3 X 4) + (3 X 3) = 12 + 9 = 21
ⓘ 4 X 8 = (4 X 3) + (4 X 5) = 12 + 20 = 32

5
ⓐ 7 X 13 = 7 x (10 + 3) = (7 x 10) + (7 x 3)
= 70 + 21 = 91
ⓑ 4 X 12 = 4 x (10 + 2) = 4 x 10 + 4 x 2
= 40 + 8 = 48
ⓒ 9 X 13 = 9 x (10 + 3) = 9 x 10 + 9 x 3
= 90 + 27 = 117
ⓓ 8 X 15 = 8 x (10 + 5) = 8 x 10 + 8 x 5
= 80 + 40 = 120

Accumulative Assessment 19

Up to Lesson (7)

1 ⓐ 19,909 ⓑ 707 ⓒ 7 x 5
ⓓ 4 + 4 + 4 + 4 ⓔ 8,000

2 ⓐ ■ ▲, ■ ▲, ■ ▲
ⓑ 6 x 9 = (6 x 5) + (6 x 4) ⓒ 6
ⓓ 57,000 ⓔ 701,280

3 ⓐ 75,005 , 75,050 , 75,055 , 75,500 , 75,505
ⓑ (3 x 9) = (3 x 3) + (3 x 6) = 9 + 18 = 27

Exercises on Chapter 5

Lesson 1

Perimeter of Polygons

1 a 6 + 4 + 6 + 4 = 20 length units
b 5 + 5 + 5 + 5 = 20 length units
c 7 + 2 + 7 + 2 = 18 length units
d 4 + 4 + 4 + 4 = 16 length units
e 8 + 5 + 8 + 5 = 26 length units
f 8 + 3 + 8 + 3 = 22 length units

2 a 4 cm , 2 cm , 4 cm , 2 cm
Perimeter = 4 + 2 + 4 + 2 = 12 cm
b 5 cm , 3 cm , 3 cm , 2 cm
Perimeter = 5 + 3 + 3 + 2 = 13 cm
c 4 cm , 3 cm , 4 cm , 3 cm
Perimeter = 4 + 3 + 4 + 3 = 14 cm
d 3 cm , 2 cm , 5 cm , 6 cm
Perimeter = 3 + 2 + 5 + 6 = 16 cm
e 4 cm , 4 cm , 2 cm , 2 cm
Perimeter = 4 + 4 + 2 + 2 = 12 cm
f 3 cm , 3 cm , 3 cm , 3 cm
Perimeter = 3 + 3 + 3 + 3 = 12 cm

3 a Perimeter = 6 + 3 + 6 + 3 = 18 cm
b Perimeter = 6 + 2 + 6 + 2 = 16 cm
c Perimeter = 6 + 5 + 6 + 5 = 22 cm
d Perimeter = 3 + 3 + 3 + 3 = 12 cm
e Perimeter = 4 + 4 + 4 + 4 = 16 cm

Accumulative Assessment 20

Up to Lesson (1)

1 a 700 b 5 c 6 x 4
d 200,099 e 200

2 a 74,375 b 2 c 8 + 8 + 8 + 8 + 8
d equal e 4

3 a Perimeter = 3 + 7 + 3 + 7 = 20 length units
b • 25 past 2 • Quarter past 11
c • Parallelogram • Kite
• Rectangle • Trapezoid

Lessons 2–4

Perimeter and Area – Area Using the Dimensions – Area Using Different Strategies

1 a Area = 4 x 6 = 24 square units
Perimeter = 4 + 6 + 4 + 6 = 20 length units
b Area = 5 x 4 = 20 square units
Perimeter = 4 + 5 + 4 + 5 = 18 length units
c Area = 2 x 6 = 12 square units
Perimeter = 2 + 6 + 2 + 6 = 16 length units
d Area = 4 x 4 = 16 square units
Perimeter = 4 + 4 + 4 + 4 = 16 length units
e Area = 5 x 5 = 25 square units
Perimeter = 5 + 5 + 5 + 5 = 20 length units
f Area = 6 x 6 = 36 square units
Perimeter = 6 + 6 + 6 + 6 = 24 length units

2

Shape	Perimeter	Area
1	3 + 5 + 3 + 5 = 16 L. units	3 X 5 = 15 square units
2	2 + 5 + 2 + 5 = 14 L. units	2 X 5 = 10 square units
3	5 + 5 + 5 + 5 = 20 L. units	5 X 5 = 25 square units
4	7 + 3 + 7 + 3 = 20 L. units	7 X 3 = 21 square units
5	1 + 5 + 1 + 5 = 12 L. units	1 X 5 = 5 square units
6	3 + 3 + 3 + 3 = 12 L. units	3 X 3 = 9 square units

3

	First Strategy	Second Strategy
a	4 + 4 + 4 = 12 Area = 12 square units	3 X 4 = 12 Area = 12 square units
b	4 + 4 + 4 + 4 = 16 Area = 16 square units	4 X 4 = 16 Area = 16 square units
c	4 + 4 = 8 Area = 8 square units	2 X 4 = 8 Area = 8 square units
d	3 X 3 = 9 Area = 9 square units	3 + 3 + 3 = 9 Area = 9 square units
e	4 X 3 = 12 Area = 12 square cm	3 + 3 + 3 + 3 = 12 Area = 12 square cm
f	4 X 2 = 8 Area = 8 square cm	2 + 2 + 2 + 2 = 8 Area = 8 square cm
g	2 X 2 = 4 Area = 4 square cm	2 + 2 = 4 Area = 4 square cm
h	3 X 3 = 9 Area = 9 square cm	3 + 3 + 3 = 9 Area = 9 square cm

4 a Area = 7 X 5 = 35 square meter
b Area = 5 X 5 = 25 square meter

c Area = 9 X 4 = 36 square cm

d Area = 7 X 7 = 49 square cm

e Area = 8 X 3 = 24 square cm

5 a Area of the first piece = 7 X 6 = 42 square cm

b Area of the second piece = 9 X 4 = 36 square cm

c The appropriate piece is first

6 a Area of the rectangle = 10 X 7 = 70 square cm

b Area of the square = 5 X 5 = 25 square cm

c Area of the remaining part = 70 – 25

= 45 square cm

Accumulative Assessment 21

Up to Lesson (4)

1 a 220,002 b 5 x 5 c 70,700

d 3 x 7 e 10,000

2 a 3 b 34,999 c 23,000

d square e 5 past 12

3 a 1 Area = 3 x 5 = 15 square units

Perimeter = 16 length units

2 Area = 16 square units

Perimeter = 20 length units

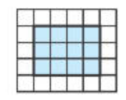
b 25,502 , 25,250 , 25,205 , 25,052 , 25,025

Lessons 5&6

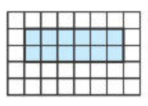
Different Perimeters for the Same Area – Different Areas for the Same Perimeter





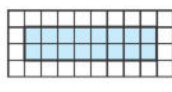


Area = 12 square units
Perimeter = 14 length units

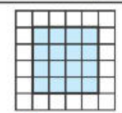


Area = 12 square units
Perimeter = 16 length units



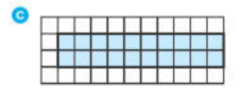


Area = 16 square units
Perimeter = 20 length units

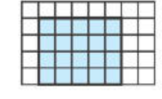


Area = 16 square units
Perimeter = 16 length units

c

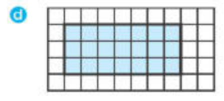


Area = 20 square units
Perimeter = 24 length units



Area = 20 square units
Perimeter = 18 length units

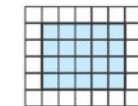
d



Area = 24 square units
Perimeter = 22 length units

Area = 24 square units
Perimeter = 20 length units



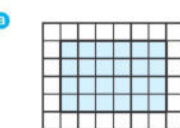


Area = 20 square units
Perimeter = 18 length units

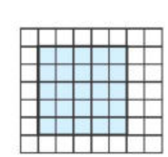
Area = 20 square units
Perimeter = 24 length units



a

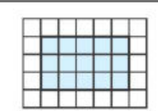


Area = 24 square units
Perimeter = 20 length units

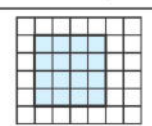


Area = 25 square units
Perimeter = 20 length units



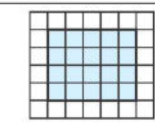


Area = 15 square units
Perimeter = 16 length units

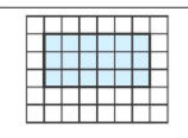


Area = 16 square units
Perimeter = 16 length units



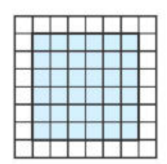


Area = 20 square units
Perimeter = 18 length units



Area = 18 square units
Perimeter = 18 length units

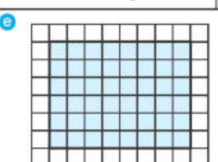


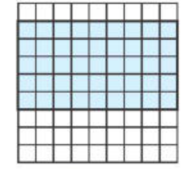


Area = 36 square units
Perimeter = 24 length units

Area = 32 square units
Perimeter = 24 length units

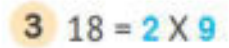
e





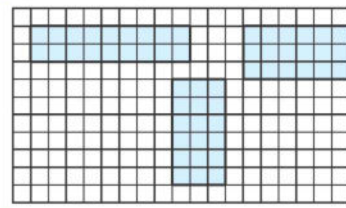
Area = 48 square units
Perimeter = 28 length units

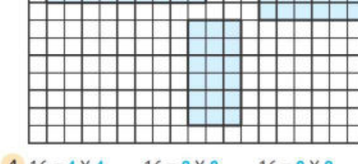
Area = 45 square units
Perimeter = 28 length units

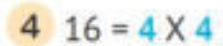




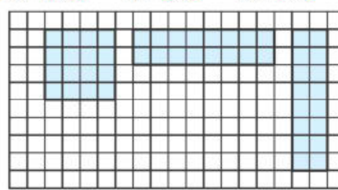
3 18 = 2 X 9 18 = 3 X 6 18 = 6 X 3





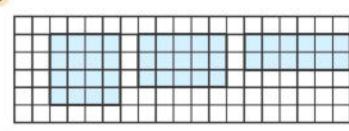


4 16 = 4 X 4 16 = 2 X 8 16 = 8 X 2

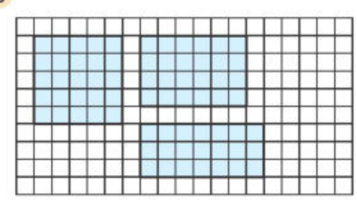




5



6



Accumulative Assessment 22

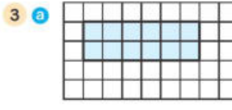


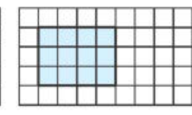
Up to Lesson (6)

1 a 800 b pentagon c 462
d 5 + 5 + 5 e 4 x 8

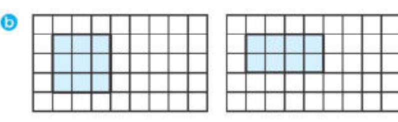
2 a 7 x 8 = (7 x 4) + (7 x 4)
b Seventy thousand, twenty c XXXXO, XXXXXO
d 54,320 e 9

3 a





b



Lesson 7

Applications on Perimeter and Area

1 8 + 3 + 8 + 3 = 22 meters
2 5 X 5 = 25 square meters
3 4 X 3 = 12 square meters
4 3 + 2 + 3 + 2 = 10 m
5 10 X 7 = 70 square meters
6 9 X 9 = 81 square cm
7 4 X 2 = 8 square meters
8 20 + 15 + 20 + 15 = 70 cm
9 80 + 120 + 80 + 120 = 400 m
10 7 X 5 = 35 square cm

Accumulative Assessment 23

Up to Lesson (7)

1 a 15,739 b 98,765 c 6 X 3
d 4 X 6 e 1

2 a Fifty-two thousand, three hundred seventy four
b 6 c 20,100 d 0

3 a

(1) Area = 20 square units
Perimeter = 18 length units

(2) Area = 28 square units
Perimeter = 22 length units

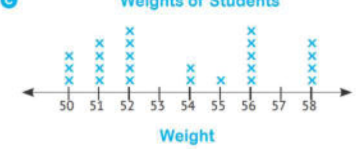
Guide Answers

ⓑ 

10 past 4

10:40
20 to 11

ⓒ Weights of Students



Weight

X = 1 student

Exercises on Chapter 6

Lessons 1

Patterns of Multiplying by Multiples of 10 & Lesson 8 – Chapter (5) Multiplying by Multiples of 10

1 ⓐ 40 ⓑ 240 ⓒ 180 ⓓ 150
ⓔ 400 ⓕ 350 ⓖ 630 ⓗ 280
ⓘ 720 ⓙ 490 ⓚ 480 ⓛ 180
ⓜ 100 ⓝ 80 ⓞ 280 ⓟ 240
ⓠ 120 ⓡ 480

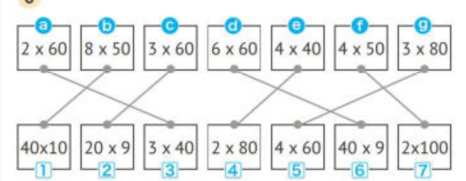
2 ⓐ 4 X 30 = 120 ⓑ 3 X 20 = 60
ⓒ 5 X 50 = 250 ⓓ 7 X 40 = 280
ⓔ 2 X 70 = 140
ⓕ 20 + 20 + 20 + 20 + 20 = 100
ⓖ 30 + 30 + 30 + 30 = 120
ⓗ 60 + 60 + 60 = 180
ⓘ 90 + 90 = 180 ⓙ 80 + 80 + 80 = 240

3 ⓐ 60 ⓑ 80 ⓒ 520
ⓓ 220 ⓔ 160 ⓕ 820
ⓖ, ⓗ, ⓘ, ⓙ, ⓚ, ⓛ, ⓜ, ⓝ 10

4 ⓐ 8 X 50 = 8 X 5 X 10 = 40 X 10 = 400
ⓑ 5 X 40 = 5 X 4 X 10 = 20 X 10 = 200
ⓒ 9 X 80 = 9 X 8 X 10 = 72 X 10 = 720
ⓓ 5 X 90 = 5 X 9 X 10 = 45 X 10 = 450
ⓔ 8 X 80 = 8 X 8 X 10 = 64 X 10 = 640
ⓕ 6 X 30 = 6 X 3 X 10 = 18 X 10 = 180
ⓖ 5 X 70 = 5 X 7 X 10 = 35 X 10 = 350
ⓗ 6 X 90 = 6 X 9 X 10 = 54 X 10 = 540
ⓘ 7 X 70 = 7 X 7 X 10 = 49 X 10 = 490

5 ⓐ 30 ⓑ 28 ⓒ 4
ⓓ 7 ⓔ 7 ⓕ 6
ⓖ 8 ⓗ 6 ⓘ 8
ⓙ 10 ⓚ 9 X 2 ⓛ 3 X 10

6



7 ⓐ 270 ⓑ 2,700 ⓒ 2,700
ⓓ 27,000 ⓔ 270,000 ⓕ 160
ⓖ 1,600 ⓗ 16,000 ⓘ 160,000
ⓙ 24 ⓚ 2,400 ⓛ 24,000
ⓜ 240,000 ⓝ 12,000 ⓞ 10
ⓟ 1,000 ⓠ 100,000 ⓡ 100,000

8 ⓐ 5 ⓑ 300 ⓒ 2
ⓓ 200 ⓔ 20 ⓕ 50
ⓖ 20 ⓗ 4 ⓘ 200
ⓙ 70 ⓚ 50 ⓛ 300
ⓜ 10 ⓝ 3 ⓞ 20
ⓟ 4 ⓠ 500 ⓡ 40

Accumulative Assessment 24

Up to Lesson (1)

1 ⓐ 9,000 ⓑ 25,000 ⓒ 8 X 2
ⓓ 9 X 4 ⓔ 20,567

2 ⓐ 750,000 + 10,000 = 760,000
ⓑ 7 X 14 = (7 X 10) + (7 X 4) = 70 + 28 = 98
ⓒ 6 X 70 = 6 X 7 X 10 = 42 X 10 = 420
ⓓ 20,020
ⓔ 80, 72, 64, 56, 48, 40, 32

3 ⓐ ① 350 ② 9 ③ 720 ④ 6
ⓑ 15,000 , 10,005 , 1,500 , 1,050 , 1,005
ⓒ 9 X 6 = 54 eggs

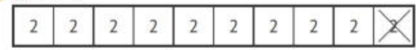
Lesson 2

Strategies of Multiplying by 9

1 (a), (b) Answer by yourself

2, **3** Answer by yourself

4 (a) **9 X 2**



2	2	2	2	2	2	2	2	2	~~2~~

9 X 2 = (10 X 2) – 2 = 20 – 2 = 18

(b) **9 X 4**

4	4	4	4	4	4	4	4	4	~~4~~

9 X 4 = (10 X 4) – 4 = 40 – 4 = 36

(c) **9 X 6**

6	6	6	6	6	6	6	6	6	~~6~~

9 X 6 = (10 X 6) – 6 = 60 – 6 = 54

(d) **9 X 8**

8	8	8	8	8	8	8	8	8	~~8~~

9 X 8 = (10 X 8) – 8 = 80 – 8 = 72

(e) **9 X 1**

1	1	1	1	1	1	1	1	1	~~1~~

9 X 1 = (10 X 1) – 1 = 10 – 1 = 9

(f) **9 X 3**

3	3	3	3	3	3	3	3	3	3

9 X 3 = (10 X 3) – 3 = 30 – 3 = 27

(g) **9 X 5**

5	5	5	5	5	5	5	5	5	~~5~~

9 X 5 = (10 X 5) – 5 = 50 – 5 = 45

(h) **9 X 7**

7	7	7	7	7	7	7	7	7	7

9 X 7 = (10 X 7) – 7 = 70 – 7 = 63

(i) **9 X 9**

9	9	9	9	9	9	9	9	9	9

9 X 9 = (10 X 9) – 9 = 90 – 9 = 81

5 (a) 3 X 10 (b) 6 X 4 (c) 5 X 8
(d) 6 X 6 (e) 6 X 4 (f) 7
(g) 9 + 9 (h) 4 X 4

6 (a) 8 + 8 + 8 = 24
(b) 6 + 6 + 6 + 6 + 6 + 6 = 36
(c) 10 + 10 = 20 (d) 2 X 9 = 18
(e) 2 X 6 = 12 (f) 2 X 8 = 16
(g) 4 X 6 = 24 (h) 4 X 8 = 32
(i) 5 X 6 = 30 (j) 9 X 8 = (10 X 8) – 8 = 72
(k) 9 X 6 = (10 X 6) – 6 = 54

Accumulative Assessment 25



Up to Lesson (2)

1 (a) 7 (b) 4 X 10 (c) 495
(d) 765,040 (e) 20,000

2 (a) 19,999 (b) 0 (c) 9
(d) 6 X 8 (e) 900,009

3 (a) (1) 112 (2) 71 (3) 18
(b) (1) < (2) = (3) > (4) =
(c) 9 X 8 = 72 LE

Lesson 3

Facts on Multiplication and Addition

1 (a) 7 (b) 9 (c) 0 (d) 0
(e) 10 (f) 9 (g) 7 (h) 5
(i) 40 (j) 40 (k) 8 (l) 8
(m) 10 (n) 18 (o) 16 (p) 6
(q) 5 X (10 + 2) = (5 X 10) + (5 X 2) = 50 + 10 = 60
(r) 8 X (10 + 3) = (8 X 10) + (8 X 3) = 80 + 24 = 104
(s) 7 X (4 + 6) = 7 X 10 = 70

2 (a) 3 + 0 = 3 (b) 0 + 9 = 9
(c) 6 X 0 = 0 (d) 0 X 4 = 0
(e) 7 X 1 = 7 (f) 1 + 8 = 9
(g) 7 X 1 = 7 (h) 1 X 8 = 8
(i) 3 X 8 = 8 X 3 (j) 6 X 5 = 5 X 6
(k) 6 + 4 = 4 + 6 (l) 4 + 5 = 5 + 4
(m) 9 + 9 = 18 (n) 7 + 7 = 14
(o) 2 X 8 = 16 (p) 3 X 2 = 6
(q) 8 + 8 = 2 X 8 (r) 4 + 4 = 4 X 2
(s) 7 X 8 = (7 X 2) + (7 X 6) = 14 + 42 = 56
(t) 9 X 17 = (9 X 10) + (9 X 7) = 90 + 63 = 153
(u) 4 X 14 = (4 X 10) + (4 X 4) = 40 + 16 = 56
(v) 8 X 10 = (8 X 3) + (8 X 7) = 24 + 56 = 80
(w) 3 X 16 = (3 X 10) + (3 X 6) = 30 + 18 = 48

3 ⓐ 5 + 0 = 0 ⓑ 8 + 0 = 8
ⓒ 0 + 7 = 7 ⓓ 15 X 0 = 0
ⓔ 6 X 1 = 6 ⓕ 1 X 7 = 7
ⓖ 12 + 1 = 13 ⓗ 10 X 1 = 10
ⓘ 1 X 3 = 3 ⓙ 6 + 1 = 7
ⓚ 5 X 3 = 3 X 5 ⓛ 4 + 9 = 9 + 4
ⓜ 9 + 2 = 2 + 9 ⓝ 8 X 3 = 3 X 8
ⓞ 5 X 6 = (5 X 3) + (5 X 3)

4 ⓐ 5 X 1 = 5 ⓑ 7 X 0 = 0
ⓒ 4 + 0 = 4 ⓓ 6 + 1 = 7
ⓔ 4 X 9 = 9 X 4 ⓕ 9 + 3 = 3 + 9
ⓖ 8 X 2 = 8 + 8
ⓗ 5 X 13 = (5 X 10) + (5 X 3)

Accumulative Assessment 26

Up to Lesson (3)

1 ⓐ 1 ⓑ 60,502 ⓒ 80,000
ⓓ 16 ⓔ 5 X 9

2 ⓐ 606,550 ⓑ 70,315 ⓒ 15
ⓓ 8 ⓔ ○ □ △

3 ⓐ 25,502 , 25,250 , 25,205 , 25,052 , 25,025
ⓑ ① 0 ② 1,800 ③ 4 ④ 6 X 1 = 6
ⓒ 2 hours

Lesson 4

Comparing and Ordering Numbers in Different Forms

1 ⓐ 700,070 ⓑ 7,425 ⓒ 70,009
ⓓ 1,999 ⓔ 20,750 ⓕ 6,000
ⓖ 800 ⓗ 3,000 ⓘ 98,765
ⓙ 102,345 ⓚ 99,999 ⓛ 1,111
ⓜ 3,000 ⓝ 800,000 ⓞ Thousands

2 ⓐ 205,611
ⓑ Seven hundred thousands, six hundred eight
ⓒ 775,853 ⓓ 998,756 ⓔ 74
ⓕ 70,000 + 7,000 + 800 + 50 + 6
ⓖ 5 Tens + 552 Thousands + 9 Ones + 1 Hundreds
ⓗ 363,000
ⓘ 70,249 ⓙ 100,000 ⓚ 699,999
ⓛ 31,561 ⓜ 105,199
ⓝ Ten Thousands ⓞ 70,000 ⓟ 999,999
ⓠ 100,000 ⓡ 99,999 ⓢ 10,000
ⓣ 76,320 and 20,367

3

	Number	Value of the Encircled Digit	Place Value of the Encircled Digit
ⓐ	④55,369	400,000	Hundred Thousands
ⓑ	3⑥2,512	60,000	Ten Thousands
ⓒ	28⓪,239	0	Thousands
ⓓ	696,2⑦4	70	Tens
ⓔ	51,78⓪	0	Ones

4 ⓐ < ⓑ < ⓒ <
ⓓ < ⓔ > ⓕ <
ⓖ > ⓗ > ⓘ <
ⓙ < ⓚ < ⓛ <

5 ⓐ Ascending Order: 20,368 , 32,023 , 54,987 , 75,023 , 98,123
Descending Order: 98,123 , 75,023 , 54,987 , 32,023 , 20,368
ⓑ Ascending Order: 500,368 , 500,386 , 500,638 , 500,683 , 500,863
Descending Order: 500,863 , 500,683 , 500,638, 500,386 , 500,368

6 5,764

Accumulative Assessment 27

Up to Lesson (4)

1 ⓐ 102,345 ⓑ 303,303 ⓒ 0
ⓓ 210,000 ⓔ 25,796

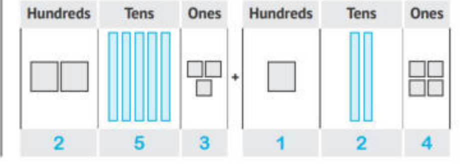
2 ⓐ 777,753 ⓑ 250,000 ⓒ Ten Thousands
ⓓ 502,287 ⓔ (8 X 4) + (8 X 7) = 32 + 56 = 88

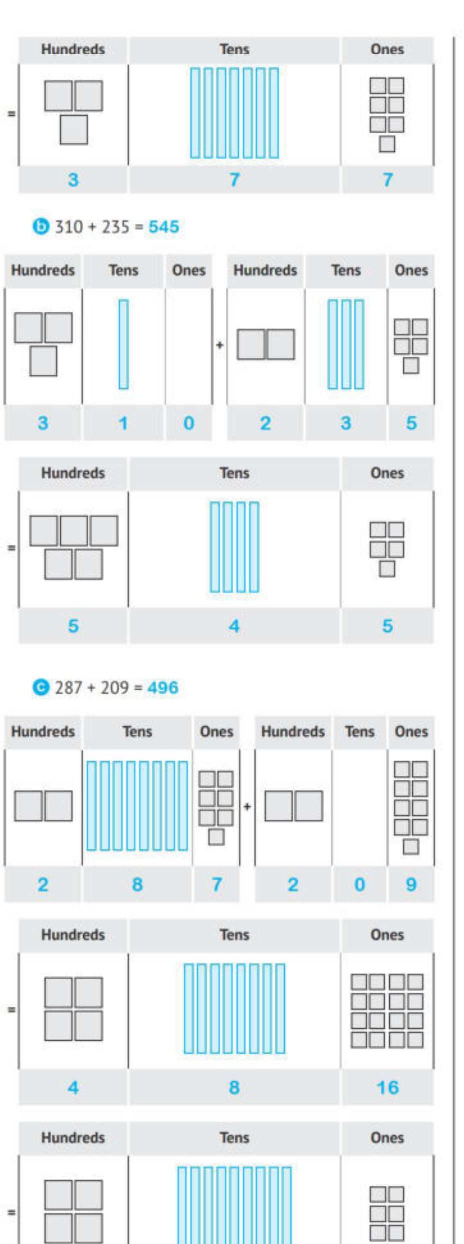
3 ⓐ ① 24 ② 18 ③ 4
ⓑ 200 , 999 , 6,000 , 10,000 , 50,000
ⓒ ① 10 ② 14

Lessons 5

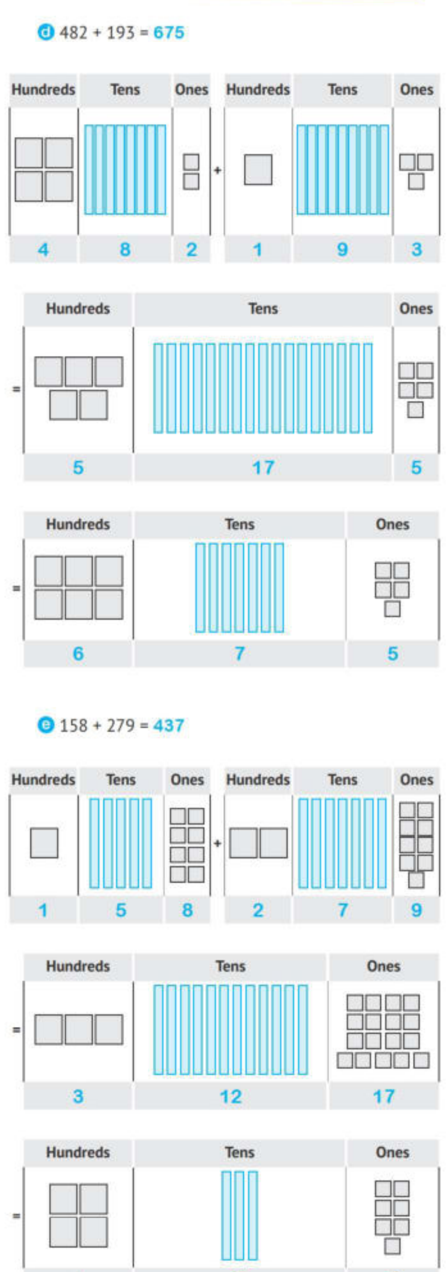
Addition Strategies

1 ⓐ 253 + 124 = 377





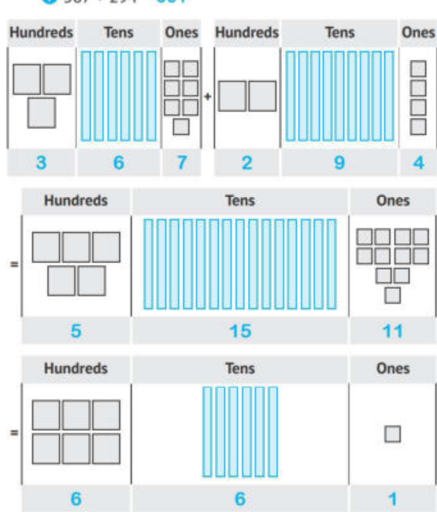
Hundreds Tens Ones
= 3 7 7
b 310 + 235 = 545
Hundreds Tens Ones Hundreds Tens Ones
3 1 0 + 2 3 5
Hundreds Tens Ones
= 5 4 5
c 287 + 209 = 496
Hundreds Tens Ones Hundreds Tens Ones
2 8 7 + 2 0 9
Hundreds Tens Ones
= 4 8 16
Hundreds Tens Ones
= 4 9 6



d 482 + 193 = 675
Hundreds Tens Ones Hundreds Tens Ones
4 8 2 + 1 9 3
Hundreds Tens Ones
= 5 17 5
Hundreds Tens Ones
= 6 7 5
e 158 + 279 = 437
Hundreds Tens Ones Hundreds Tens Ones
1 5 8 + 2 7 9
Hundreds Tens Ones
= 3 12 17
Hundreds Tens Ones
= 4 3 7

Guide Answers

ⓕ 367 + 294 = **661**



2

	Problem	Work Space	Sum
ⓐ	253 + 124	200 + 50 + 3 100 + 20 + 4 300 + 70 + 7	377
ⓑ	376 + 342	300 + 70 + 6 300 + 40 + 2 600 + 110 + 8	718
ⓒ	128 + 439	100 + 20 + 8 400 + 30 + 9 500 + 50 + 17	567
ⓓ	428 + 297	400 + 20 + 8 200 + 90 + 7 600 + 110 + 15	725
ⓔ	108 + 692	100 + 0 + 8 600 + 90 + 2 700 + 90 + 10	800
ⓕ	5,125 + 3,753	5,000 + 100 + 20 + 5 3,000 + 700 + 50 + 3 8,000 + 800 + 70 + 8	8,878
ⓖ	6,287 + 1,521	6,000 + 200 + 80 + 7 1,000 + 500 + 20 + 1 7,000 + 700 + 100 + 8	7,808
ⓗ	2,458 + 3,451	2,000 + 400 + 50 + 8 3,000 + 400 + 50 + 1 5,000 + 800 + 100 + 9	5,909
ⓘ	6,666 + 2,314	6,000 + 600 + 60 + 6 2,000 + 300 + 10 + 4 8,000 + 900 + 70 + 10	8,980
ⓙ	7,357 + 242	7,000 + 300 + 50 + 7 + 200 + 40 + 2 7,000 + 500 + 90 + 9	7,599
ⓚ	6,824 + 257	6,000 + 800 + 20 + 4 + 200 + 50 + 7 6,000 + 1,000 + 70 + 11	7,081

3

	Problem	Work Space	Sum
ⓐ	356 + 243	+200 +40 +3 356 556 596 599	599
ⓑ	147 + 237	+100 +40 +7 237 337 377 384	384
ⓒ	124 + 773	+100 +20 +4 773 873 893 897	897
ⓓ	257 + 212	+200 +10 +2 257 457 467 469	469
ⓔ	624 + 421	+400 +20 +1 624 1,024 1,044 1,045	1,045
ⓕ	3,125 + 4,234	+3000 +100 +20 +5 4,234 7,234 7,334 7,354 7,359	7,359
ⓖ	3,561 + 2,533	+2000 +500 +30 +3 3,561 5,561 6,061 6,091 6,094	6,094
ⓗ	4,258 + 3,124	+3000 +100 +20 +4 4,258 7,258 7,358 7,378 7,382	7,382
ⓘ	8,124 + 325	+300 +20 +5 8,124 8,424 8,444 8,449	8,449
ⓙ	3,587 + 413	+400 +10 +3 3,587 3,987 3,997 4,000	4,000

4

ⓐ 368	ⓑ 331	ⓒ 6,667
ⓓ 222	ⓔ 659	ⓕ 1,000
ⓖ 869	ⓗ 1,199	ⓘ 8,955
ⓙ 338	ⓚ 621	ⓛ 500
ⓜ 3,824	ⓝ 6,920	ⓞ 4,943

Accumulative Assessment 28

Up to Lesson (5)

1 ⓐ 987,654 ⓑ 850,058 ⓒ 40,000
ⓓ 250,000 ⓔ 80,000

2 ⓐ 28 + 28 = 56 ⓑ 581,083
ⓒ 7 ⓓ 100,000 ⓔ

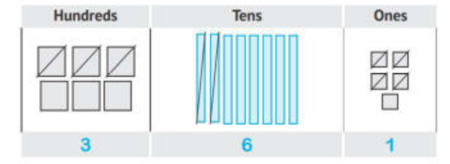
3 ⓐ ① 5,080 ② 9,529 ③ 830,210
ⓑ 50 , 500 , 5,000 , 50,000 , 500,000
ⓒ 980

+200 +50 +6
724 924 974 980

Lesson 6

Subtraction Strategies

1 ⓐ 685 – 324 = 361



Hundreds	Tens	Ones
3	6	1

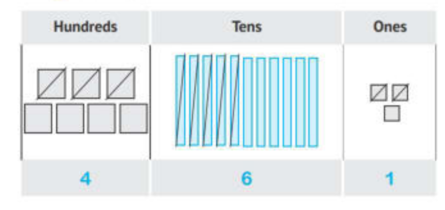
Check: 324 + 361 = 685

ⓑ 457 – 252 = 205

Hundreds	Tens	Ones
2	0	5

Check: 252 + 205 = 457

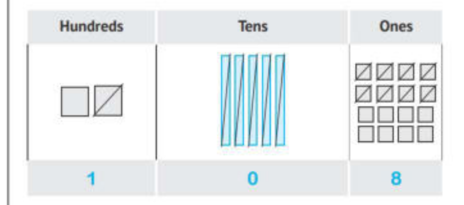
ⓒ 713 – 252 = 461



Hundreds	Tens	Ones
4	6	1

Check: 252 + 461 = 713

ⓓ 256 – 148 = 108



Hundreds	Tens	Ones
1	0	8

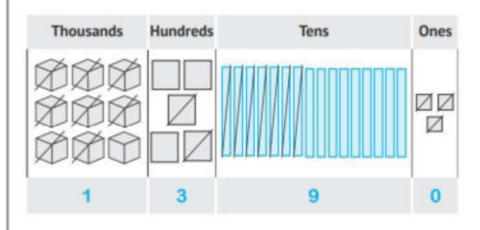
Check: 148 + 108 = 256

ⓔ 5,476 – 1,236 = 4,240

Thousands	Hundreds	Tens	Ones
4	2	4	0

Check: 1,236 + 4,240 = 5,476

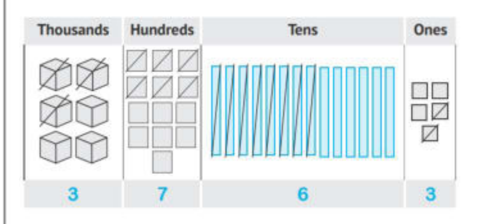
ⓕ 9,563 – 8,173 = 1,390



Thousands	Hundreds	Tens	Ones
1	3	9	0

Check: 8,173 + 1,390 = 9,563

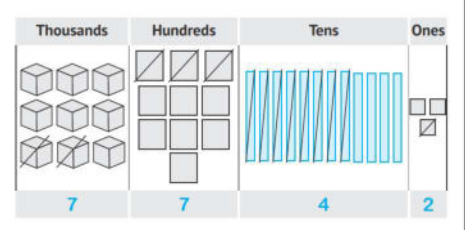
ⓖ 6,345 – 2,582 = 3,763



Thousands	Hundreds	Tens	Ones
3	7	6	3

Check: 2,582 + 3,763 = 6,345

ⓗ 9,023 – 1,281 = 7,742

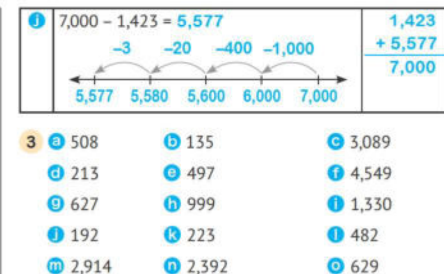


Thousands	Hundreds	Tens	Ones
7	7	4	2

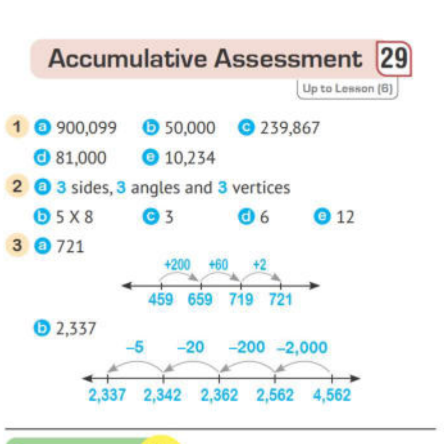
Check: 1 281 + 7 742 = 9 023

2

	Subtraction Problem	Check
ⓐ	753 – 241 = 512 –1 –40 –200 512 513 553 753	241 + 512 753
ⓑ	856 – 215 = 641 –5 –10 –200 641 646 656 856	215 + 641 856
ⓒ	777 – 253 = 524 –3 –50 –200 524 527 577 777	253 + 524 777
ⓓ	654 – 129 = 525 –2 –20 –100 525 534 554 654	129 + 525 654
ⓔ	654 – 294 = 360 –4 –90 –200 360 364 454 654	294 + 360 654
ⓕ	7,852 – 324 = 7,528 –4 –20 –300 7,528 7,532 7,552 7,852	324 + 7,528 7,852
ⓖ	9,529 – 283 = 9,246 –3 –80 –200 9,246 9,249 9,329 9,529	283 + 9,246 9,529
ⓗ	8,547 – 3,421 = 5,126 –1 –20 –400 –3,000 5,126 5,127 5,147 5,547 8,547	3,421 + 5,126 8,547
ⓘ	6,542 – 2,217 = 4,325 –7 –10 –200 –2,000 4,325 4,332 4,342 4,542 6,542	2,217 + 4,325 6,542
ⓙ	7,000 – 1,423 = 5,577 –3 –20 –400 –1,000 5,577 5,580 5,600 6,000 7,000	1,423 + 5,577 7,000



3 ⓐ 508 ⓑ 135 ⓒ 3,089
ⓓ 213 ⓔ 497 ⓕ 4,549
ⓖ 627 ⓗ 999 ⓘ 1,330
ⓙ 192 ⓚ 223 ⓛ 482
ⓜ 2,914 ⓝ 2,392 ⓞ 629



Accumulative Assessment 29

Up to Lesson (6)

1 ⓐ 900,099 ⓑ 50,000 ⓒ 239,867
ⓓ 81,000 ⓔ 10,234

2 ⓐ 3 sides, 3 angles and 3 vertices
ⓑ 5 X 8 ⓒ 3 ⓓ 6 ⓔ 12

3 ⓐ 721
+200 +60 +2
459 659 719 721

ⓑ 2,337
–5 –20 –200 –2,000
2,337 2,342 2,362 2,562 4,562

Lesson 7

Applications on Addition and Subtraction

1 ⓐ 354 + 203 = 557 students
ⓑ 478 + 203 + 139 = 820 students
ⓒ 478 – 371 = 107 students
ⓓ P3 ⓔ P5

2 ⓐ Nile rivers ⓑ Euphrates river
ⓒ 3,775 + 6,400 = 10,175 km
ⓓ 2,800 + 6,650 = 9,450 km
ⓔ 6,650 – 2,800 = 3,850 km

3 ⓐ 5,940 – 4,210 = 1,730 LE
ⓑ 5,350 – 2,120 = 3,230 eggs
ⓒ 680 – 235 = 445 sheep
ⓓ 525 + 137 = 662 books
2,475 – 662 = 1,813 books

ⓔ 3,340 + 692 = 4,032 LE

5,000 – 4,032 = 968 LE

ⓕ 215 + 215 + 215 = 645 books

ⓖ 5,764

ⓗ 1,200 + 150 + 6 = 1,356

Accumulative Assessment 30

Up to Lesson (7)

1 ⓐ 102,345 ⓑ 303,303 ⓒ 0

ⓓ 210,000 ⓔ 25,796

2 ⓐ 6 X 3 = 9 + 9 ⓑ 5 X 7 = (5 X 4) + (5 X 3)

ⓒ 9 X 3 = 3 X 9 ⓓ 45 ÷ 9 = 5

ⓔ 12 + 0 = 12

3 ⓐ ① 1 099 ② 3 891

ⓑ 200 , 999 , 6,000 , 10,000 , 50,000

ⓒ 545 + 235 = 780 LE

Lessons 8&9

Capacity – Reading Capacity

1 ⓐ ⓑ

ⓒ ⓓ

ⓔ  ⓕ 

2 ⓐ ⓑ

ⓒ ⓓ

ⓔ ⓕ

3 ⓐ Liter ⓑ Milliliter ⓒ Milliliter

ⓓ Milliliter ⓔ Liter ⓕ Milliliter

ⓖ Milliliter ⓗ Liter ⓘ Milliliter

ⓙ Liter ⓚ Liter ⓛ Milliliter

ⓜ Liter ⓝ Liter ⓞ Milliliter

4 ⓐ 2 liters = 2,000 milliliters

ⓑ 5 liters = 5,000 milliliters

ⓒ 7 liters = 7,000 milliliters

ⓓ 9 liters = 9,000 milliliters

ⓔ 25 liters = 25,000 milliliters

ⓕ 10 liters = 10,000 milliliters

ⓖ 4,000 milliliters = 4 liters

ⓗ 6,000 milliliters = 6 liters

ⓘ 90,000 milliliters = 90 liters

ⓙ 20,000 milliliters = 20 liters

ⓚ To measure the capacity of the soda can, we use milliliter.

ⓛ To measure the capacity of the swimming pool, we use liter.

ⓜ The liter is used to measure capacity.

ⓝ The milliliter is used to measure capacity.

ⓞ The graduated cylinder is a tool for measuring capacity.

5 ⓐ 50ml ⓑ 80ml

ⓒ 90ml ⓓ 30ml

ⓔ 20ml ⓕ 100ml

ⓖ 40ml ⓗ 60ml

Accumulative Assessment 31

Up to Lesson (9)

1 ⓐ 8 000 ⓑ 7 X 4 ⓒ 6

ⓓ 200ml ⓔ Liter

2 ⓐ 9 ⓑ liter

ⓒ 100,000 ⓓ 200

ⓔ 10,234

3 ⓐ ① 9 X 13 = (9 X 10) + (9 X 3) = 90 + 27 = 117

② 72 ÷ 8 = 9 ③ 899 + 1 001 = 1 900

④ 42 ÷ 6 = 7

ⓑ 63 ÷ 9 = 7 Books

ⓒ ① Milliliter ② Liter

③ Milliliter ④ Liter

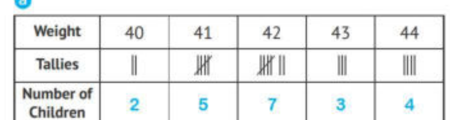
Guide Answers

Final revision

Collecting and Classifying Data

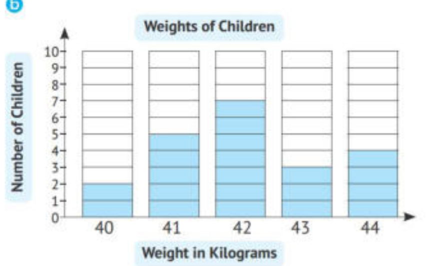
1

a

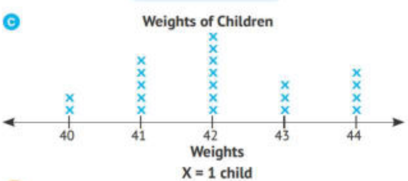


Weight	40	41	42	43	44
Tallies	ǀǀ	卌	卌 ǀǀ	ǀǀǀ	ǀǀǀǀ
Number of Children	2	5	7	3	4

b



c

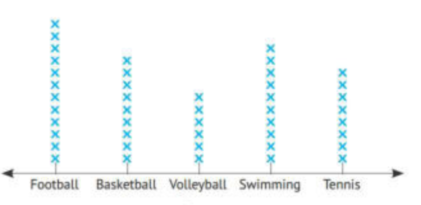


2

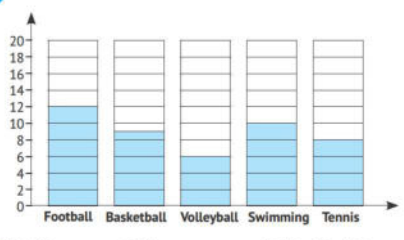
a

Favorite Sport	Football	Basketball	Volleyball	Swimming	Tennis
Tallies	卌 卌 ǀǀ	卌 ǀǀǀǀ	卌 ǀ	卌 卌	卌 ǀǀǀ
Number of Students	12	9	6	10	8

b



c



d 1 12 — 2 6 — 3 9 + 8 = 17
4 Football — 5 Volleyball

Numbers Up to 999,999 and Operations on Them

First:

1 700,070 — 2 94,904 — 3 75,856
4 802,604 — 5 45,806 — 6 25,000 — 7 50
8 800 — 9 40 — 10 7,000 — 11 0
12 Tens — 13 Ten Thousands — 14 10,000
15 999,999 — 16 9,876 — 17 1,023 — 18 86,543
19 10,379 — 20 88,842 — 21 45,100 — 22 70,011
23 78,100 — 24 9,999 — 25 < — 26 =
27 > — 28 > — 29 = — 30 <

Second:

1 Twenty–five thousand, three hundred, twenty-five
2 Nine hundred two thousand, nineteen
3 70,000 + 8,000 + 100 + 70 + 2
4 600,000 + 50,00 + 200 + 50 + 6
5 45,000 — 6 200 — 7 95,534
8 18 Thousands + 0 Hundreds + 2 Tens + 5 Ones
9 2 Ones + 800 Thousands + 1 Ten + 0 Hundreds
10 2,000 — 11 100 — 12 4,000
13 600,000 — 14 90,000 — 15 Hundreds
16 Thousands — 17 100,000 — 18 99,999
19 9,999 — 20 1,111 — 21 987,520
22 10,468 — 23 999,942 — 24 55,557
25 100,000 — 26 50,001 — 27 25,477
28 11,000 — 29 50,099 — 30 80,019

Third:

1
- 74,573
- Seventy-four thousand, five hundred seventy- three
- 70,000 + 4,000 + 500 + 70 + 3
- 74 Thousands + 5 Hundreds + 7 Tens + 3 Ones

2
- 615,912
- Six hundred fifteen thousands nine hundred twelve
- 600,000 + 10,000 + 5,000 + 900 + 10 + 2
- 615 Thousands + 9 Hundreds + 1 Ten + 2 Ones

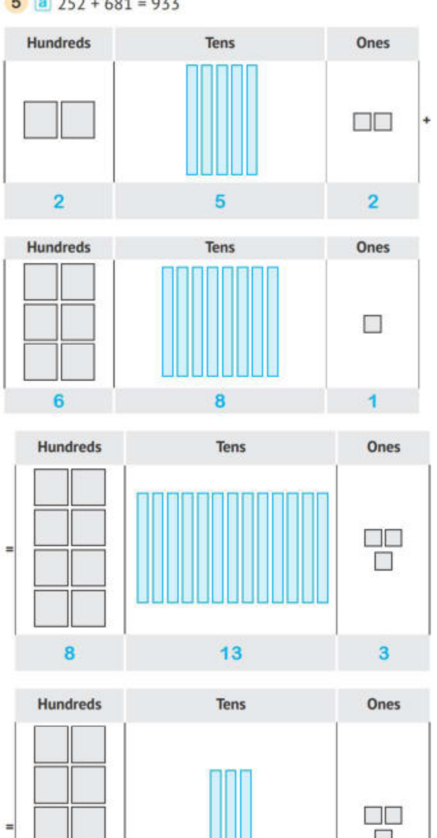
3 a 75,025 , 75,205 , 75,250 , 75,502 , 75,520

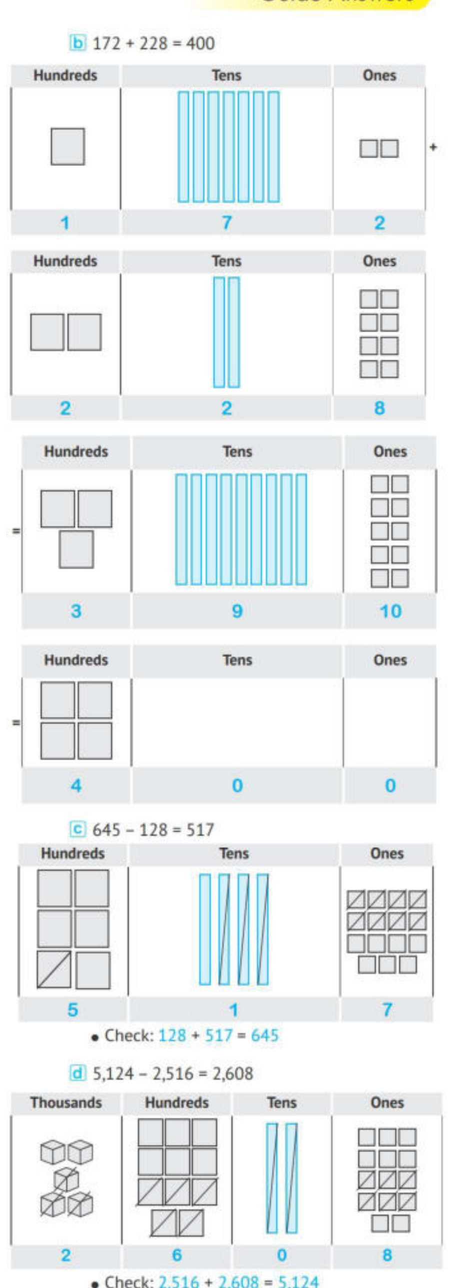
b 9,999 , 10,000 , 99,000 , 99,999 , 100,000

4 a 85,850 , 85,805 , 85,580 , 85,085 , 85,058

b 11,111 , 10,234 , 10,023 , 10,011 , 10,000

5 a 252 + 681 = 933





b 172 + 228 = 400

c 645 – 128 = 517

- Check: 128 + 517 = 645

d 5,124 – 2,516 = 2,608

- Check: 2,516 + 2,608 = 5,124

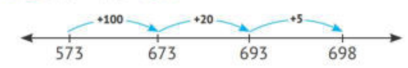
6 a 782 + 126 = 908

700	+	80	+	2		
100	+	20	+	6		
800	+	100	+	8	=	908

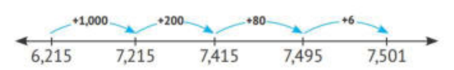
b 2,354 + 1,652 = 4,006

1,000	+	600	+	50	+	2		
2,000	+	300	+	50	+	4		
3,000	+	900	+	100	+	6	=	4,006

7 a 573 + 125 = 698



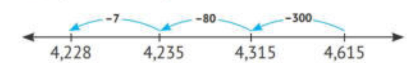
b 6,215 + 1,286 = 7,501



c 864 – 123 = 741



d 4,615 – 387 = 4,228



8 a 245 + 368 = 613 LE

b 7,158 – 2,420 = 4,738 LE

c • 245 + 455 = 700 LE

• 984 – 700 = 284 LE

d • 510 + 200 = 710 books

• 1,258 – 710 = 548 books

Multiplication and Its Properties

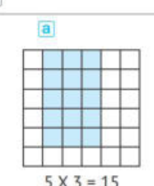
1
1. 4 × 5
2. 6
3. 6 × 3
4. 4 + 4 + 4
5. 2
6. 5
7. 9
8. 9
9. 4
10. 4
11. 10
12. 3 × 6
13. (5 × 3) + (5 × 4)
14. 40
15. 500
16. 200
17. 5
18. 56
19. 10
20. 5
21. 18
22. 10
23. 1,200
24. 60
25. 200
26. 7
27. 6
28. 6
29. 18
30. 9

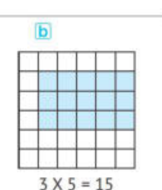
2
1. 7 × 5
2. 2 × 6
3. 8 + 8
4. 7 + 7 + 7
5. 8 × 9
6. 5 × 9
7. 5 × 4
8. 9 × 7
9. 4 × 7
10. 6 × 5
11. 3 × 8
12. 9 × 10
13. (3 × 2)(3 × 7)
14. 80
15. 6 × 2,000
16. 70 × 200
17. 500 × 4
18. 42 × 10
19. 5 × 8 × 10
20. 5 × 6
21. 48 × 10
22. 9 × 10
23. 1,600
24. 900 × 70
25. 50 × 20
26. 5
27. 9 × 4
28. 7
29. 42 ÷ 7
30. 72 ÷ 8

3 1
a 10 , 12 , 14 , 16
b 18 , 15 , 12 , 9
c 40 , 48 , 56 , 64
d 54 , 45, 36 , 27

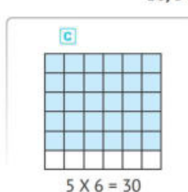
2
a 3 rows of 4 • 3 × 4 = 12
b 2 rows of 6 • 2 × 6 = 12
c 4 rows of 5 • 4 × 5 = 20
d 4 columns of 3 • 4 × 3 = 12
e 6 columns of 2 • 6 × 2 = 12
f 5 columns of 4 • 5 × 4 = 20

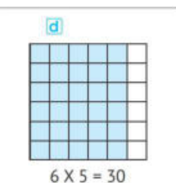
3

a

5 X 3 = 15

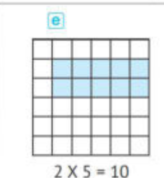
b

3 X 5 = 15

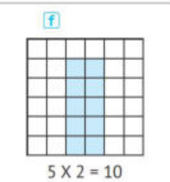
So, 5 X 3 = 3 X 5

c

5 X 6 = 30

d

6 X 5 = 30

So, 5 X 6 = 6 X 5

e

2 X 5 = 10

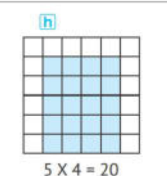
f

5 X 2 = 10

So, 2 X 5 = 5 X 2

g

4 X 5 = 20

h



5 X 4 = 20

So, 4 X 5 = 5 X 4

4 a
- 1 X 20 • 20 X 1
- 2 X 10 • 10 X 2
- 4 X 5 • 5 X 4
- Factors of 20 are: 1, 2, 4, 5, 10, 20

b
- 1 X 18 • 18 X 1
- 2 X 9 • 9 X 2
- 3 X 6 • 6 X 3
- Factors of 18 are: 1, 2, 3, 6, 9, 18

c
- 1 X 15 • 15 X 1
- 3 X 5 • 5 X 3
- Factors of 15 are: 1, 3, 5, 15

d
- 1 X 9 • 9 X 1
- 3 X 3
- Factors of 9 are: 1, 3, 9

5

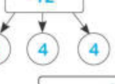
a (6 X 3) + (6 X 4) = 18 + 24 = 42	b (5 X 4) + (5 X 7) = 20 + 35 = 55
c (3 X 4) + (3 X 5) = 12 + 15 = 27	d (6 X 2) + (6 X 9) = 12 + 54 = 66

6 6 X 7 = 42 rolls

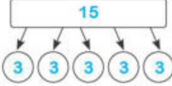
7 8 X 4 = 32 apples

8 5 X 10 = 50 cans

9 12 ÷ 3 = 4 cats

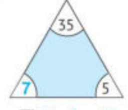


10 15 ÷ 5 = 3 oranges



11





1 7 × 5 = 35
2 5 × 7 = 35
3 35 ÷ 7 = 5
4 35 ÷ 5 = 7

b

48, 6, 8

1 6 × 8 = 48
2 8 × 6 = 48
3 48 ÷ 6 = 8
4 48 ÷ 8 = 6

12, 13 Answer by yourself.

Geometry and Measurements

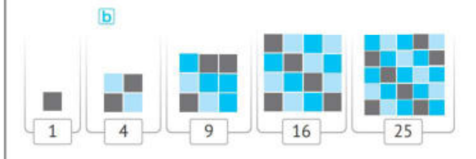
1

1 50	2 600	3 200
4 2,000	5 70	6 900
7 60	8 30	9 15
10 24	11 2,000	12 10,000
13 50	14 meter	15 millimeter
16 centimeter	17 2	18 8 : 40
19 3	20 pentagon	21 rhombus
22 trapezoid	23 rectangle	24 milliliter
25 liter	26 length	27 capacity
28 time	29 capacity	30 length

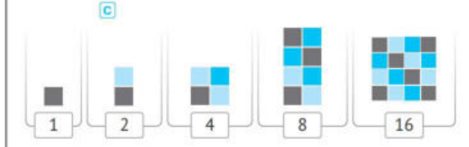
2

1 60	2 100	3 400
4 5,000	5 90	6 40
7 1	8 24	9 7,000
10 10,000	11 90	12 4
13 4	14 hexagon	15 equal
16 equal	17 milliliter	18 centimeter
19 capacity	20 time	

3 1 a



b



c

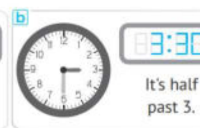
1 2 4 8 16

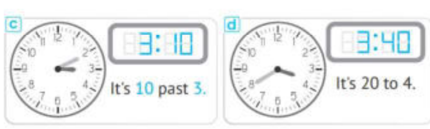
2

a



b



c


d

e


f

3

	a	b	c
Number of Sides	3	4	5
Name	Triangle	Quadrilateral	Pentagon

	a	b	c
Number of Sides	6	7	8
Name	Hexagon	Heptagon	Octagon

4

Kite
Parallelogram
Trapezoid
Rectangle
Rhombus
Square

5 a Perimeter = 12 cm b Perimeter = 10 cm
c Perimeter = 10 cm

6

Shape	1	2	3	4	5
Perimeter	16	20	26	22	14
Area	15	25	40	20	10

Models

Model 1

1 a 25,025 b 5 X 4 c 500
d 10,000 e 32

2 a 8 b Thousands
c 45,045 d 20 past 9 e 4

3 a 42,024 , 42,204 , 42,240 , 42,402 , 42,420
b • Area = 40 square units
• Perimeter = 26 length units
• Area = 35 square units
• Perimeter = 24 length units
c 245 + 188 = 433 LE

Model 2

1 a 1,600 b 405,405 c 10
d 300 e 3

2 a 90,000 b 19,999
c 20 d equal e 594,414

3 a • 7,050 • 72 • 6,419 • 5
b • 5:40 • 20 to 6
• 5:15 • Quarter past 5
c 8 X 4 = 32 Legs

Model 3

1 a 4 X 6 b 55,000 c 100
d centimeter e 100

2 a (9 X 10) (9 X 2) = 90 + 18 = 108 b 3
c Hundreds d 1 e 10,234

3 a • < • = • > • <
b 1,250 – 625 = 625 LE
c • Bananas • Pears

Model 4

1 a 60 b 5,000 c 405
d 6,000 e 9

2 a 7 X 4
b 1 One + 2 Hundreds + 87 Thousands + 0 Tens
c 4 d (5 X 4) = 50 + 20 = 70
e 45 199

3 a 10,000 , 9,999 , 1,100 , 1,000 , 999
b 36 ÷ 4 = 9 Crayons

36
9 9 9 9

c) a) 4 rows of 4 • 4 X 4 = 16
b) 3 rows of 6 • 3 X 6 = 18

Model 5

1 a) 703,850 b) 5 X 7 c) 24
d) 42 e) 99,999
2 a) 6 b) Hundreds Thousands
c) 45 + 45,000 d) rectangle e) 8 X 17
3 a) 756 + 123 = 879
b) 8,542 – 1,239 = 7,303

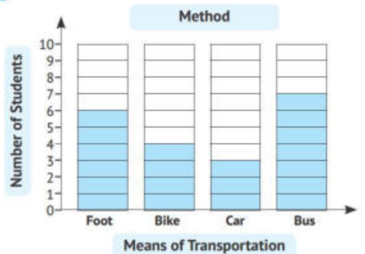
Thousands	Hundreds	Tens	Ones
7	3	0	3

• Check: 1,239 + 7,303 = 8,542

c) Answer by yourself

Model 6

1 a) 20,020 b) 7 c) 20,000
d) 200,020 e) 8
2 a) 20,568 b) Ten Thousands
c) 6 X 200 d) hexagon e) 15 X 10
3 a) 8,654 , 6,584 , 6,485 , 5,684 , 4,568
b) 756 + 318 = 1,074 LE
c)



Model 7

1 a) 21,001 b) 3 c) 3
d) 10,000 e) 9
2 a) 5 b) 251,000
c) 6 + 6 + 6 + 6 d) 18, 15, 12 e) 5 past 8
3 a) • 10,000 • 28 • 6,130 • 7
b) 1 X 16 • 16 X 1
• 2 X 8 • 8 X 2
• 4 X 4
• The factors of 16 are: 1, 2, 4, 8, 16
• 1 X 8 • 8 X 1
• 2 X 4 • 4 X 2
• The factors of 8 are: 1, 2, 4, 8

Model 8

1 a) 4 b) 30,578 c) 5
d) capacity e) 100,000
2 a) 9 X 9 b) 6
c) Two hundred four thousand, twenty
d) 0 e) 2 , 1 , 0 , 85
3 a) • > • > • < • =
b) 542 – 325 = 217 LE
c)



It's 10 past 7.



It's 20 to 4.

Model 9

1 a) 500,000 b) length c) 2,003
d) 100 e) 8
2 a) 10 b) 35
c) 32,010 d) 85,802 e) 5 X 3
3 a) 505,000 , 500,000 , 55,000 , 50,000 , 5,000
b) 120 + 30 = 150 • 250 – 150 = 100
c) 1 3 rows of 6 • 3 X 6 = 18
2 4 column of 5 • 4 X 5 = 20

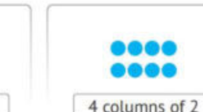
Model 10

1 a) 1,000 b) time c) 3 X 15
d) 100,000 e) Thousands
2 a) 20,000 + 2,000 = 22,000 b) 25,009
c) 4 X 10 d) XXXXO, XXXXXO e) 77,753
3 a)

400	+	50	+	6		
600	+	20	+	8		
1,000	+	70	+	14	=	1,084

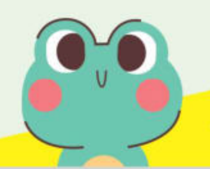
b)

3 row of 5



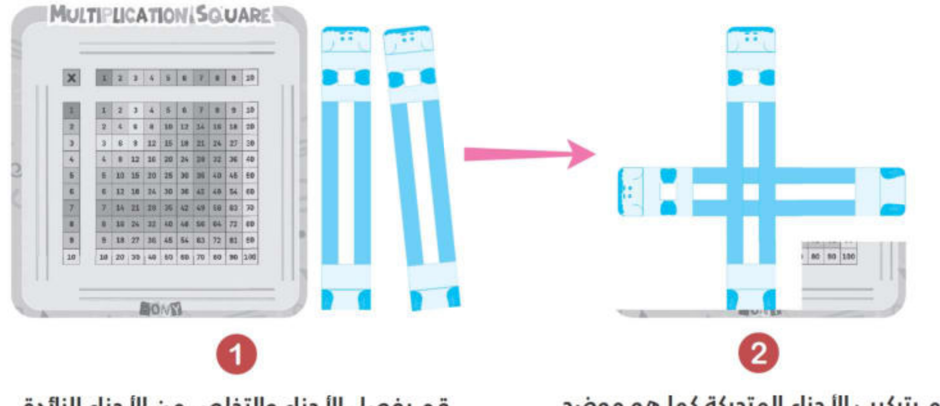
4 columns of 2

c) Answer by yourself



تركيب واستخدام لعبة
Multiplication Square





قم بتحريك الأشرطة للوصول لعملية الضرب المطلوبة كما هو موضح بالمثالين:

